



Department of Defense

Medical Planning Criteria and Medical Equipment Guide Plates

DoD Space Planning Criteria for Health Facilities

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DoD Space Planning Criteria for Health Facilities

General

1.1.1 PURPOSE

The Office of the Assistant Secretary of Defense Health Affairs (OASD(HA)) has primary responsibility for establishing functional space criteria and standards for medical facility programs necessary to fulfill the Secretary of Defense's responsibilities. The purpose of this document is to present criteria for planning, programming, and budgeting for DoD Medical Facilities for all services. The criteria prepared are guidelines, which are subject to alteration by OASD (HA), on a case-by-case basis.

1.1.2 ORGANIZATION / OVERVIEW

Chapter 1.0, General, is divided into four sections:

- 1.1 Introduction,
- 1.2 Occupancy Rates
- 1.3 Net to Gross Conversion Ratios
- 1.4 Medical Mobilization Requirements

Chapter 1.0, General, is a brief summary of the contents and acts as a guide to the document's purpose and use. The DoD occupancy rates, net to gross conversion ratios, and medical mobilization requirements, within this introduction, contain information that apply to overall facility sizing and are applied to each of the functional areas that are contained in this document.

The functional areas in the following chapters, represent criteria in specific areas of a facility used to design and program DoD's health facilities. The areas are arranged, by function, in the following five chapters:

- 2.0 Administration
- 3.0 Outpatient Services
- 4.0 Inpatient Services
- 5.0 Support/Ancillary Services
- 6.0 Toilets, Lounges, and Locker Facilities

As requirements change, it is expected that these criteria will be updated. Requests for changes to the criteria should be forwarded through the chain of command (with endorsement by the appropriate specialty consultants) to:

HFSC Space and Equipment Planning Subcommittee
Defense Medical Facilities Office
Suite 810
5111 Leesburg Pike
Falls Church, VA 22041-3258

The Defense Medical Facilities Office is responsible for the maintenance of this document and will coordinate changes to this document, between the services and other offices within the Office of the Secretary of Defense. All requests for changes will identify the deficiency, and describe the recommended change. Provide references to changes in health care standards when applicable.

1.1.3 STANDARD CHARACTERISTICS

In the analysis and criteria, several operating characteristics were standardized. A 250-day work year per full time equivalent (FTE) is assumed. This allows for leave due to federal holidays. Also, an eight-hour workday is assumed unless otherwise noted.

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General

1.1.4 SPACE PLANNING FRAMEWORK

To guide and ensure consistent evaluation, a framework for space planning is proposed. The framework consists of the information listed throughout this document, and has been inserted into the Space & Equipment Planning System program of The Defense Medical Facilities Office. These guidelines, along with equipment requirements, help determine square footage listed in the Program for Design (PFD) through the use of the SEPS program.

There are two stages to the proposed framework (there may be multiple levels of determination in each stage):

Stage 1: Develop specific functional area space programs based on environmental inputs.

Stage 2: Perform a readiness review of the resulting first stage space programs.

This section presents this framework and considerations for each stage.

Functional areas of planning are driven from a set of environmental inputs, through a set of space criteria leading to a functional area Program for Design.

Within this framework, the environmental inputs are defined to indicate demand for space (e.g., program obligations, service requirements, staffing, activity, and equipment).

The four major categories of space criteria are: patient care, support of patient care, administration, and support of administration.

To determine the Program for Design, the environmental inputs are translated via a set of specific space criteria.

Some of the issues undertaken during a readiness review (second stage) include:

*** Does the program provide appropriate space for mission accomplishment and for all personnel who will be working in the facility?**

One of the most common mistakes in the creation of a space program for a facility is to overlook one or more functions, which will be accomplished in the proposed facility. All too often reviewers of space planning documents focus on what is stated in the document and fail to look for that which was omitted. Insure that all services are included. Additionally, insure that space is provided for all workers in the facility. This includes assigned personnel (military and civilians), volunteers, contractors and borrowed labor.

*** Are there differences in the space criteria assumptions or operating characteristics that impact the numbers and sizes of units?**

For example, use of quick chill food preparation allows for more even distribution of work load which can lead to almost complete elimination of food preparation areas, reduction in the cook's line space, and reduction of storage space, but increase space requirements for remote food preparation alcoves.

For example, the development and implementation of digital radiology imaging equipment will require additional space for the digital radiology equipment and computer control staff areas, while reducing film storage requirements.

*** Are environmental factors present that necessitate the support of a program not justified within the criteria?**

For example, obstetrical services are not justified where volumes are less than 250 deliveries per year.

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General

Remote facilities, which have an obstetrical requirement or where local community obstetrical standards are not up to US standards, may require that this service be provided.

*** Are environmental factors present that necessitate the support of a program not covered by the criteria?**

For example, teaching and research activities may currently warrant programming for interventional radiography. Location and access to this modality may prevent the use of local facilities.

*** Could services more appropriately be provided through alternative methods?**

For example, obstetrical requirements of less than 10 Average Daily Patient Load (ADPL) may be more economically met through other community providers

*** Is this an addition/alteration project? If so, then what allowance, if any, should be made in computing final area gross square feet?**

*** Are there physical constraints on exterior walls that make the net to gross conversion factors unrealistic?**

For example, facilities in severe climates may be designed with thicker walls (for a larger amount of insulation) than in average climates. The additional wall thickness may be justified in order to lead to lower operating energy costs. Another example is small facilities that often have a proportionately smaller amount of space contained within the exterior walls, than larger facilities.

*** Is there potential for consolidation of staff support areas (e.g., lockers, waiting rooms, lounge or conference areas)?**

For example, operating practices may warrant certain groupings of activities that lead to consolidation and coordination of space.

For example, medical staff in several clinical specialties operate through a group practice. Physical design can support this leading to configuration and sizing different than the results of the first stage of the proposed space planning framework discussed above.

Facility programming is a dynamic process. The two stage space planning framework presented is designed to assure a sound rational defense for the scope of a facility design project as it moves through the budgeting, programming, design, and approval process.

DoD Space Planning Criteria for Health Facilities

Occupancy Rates

1.2.1 BED SIZING CONFIDENCE CRITERIA

The following occupancy rates shall be used in planning numbers of beds in DoD hospitals:

(1) MEDICAL, SURGICAL, PEDIATRICS, AND PSYCHIATRIC

ADPL	ADPL Occupancy Rates
less than 26	70%
26-50	80%
51-100	85%
101-250	90%
greater than 250	95%

(2) OBSTETRICAL UNITS

Occupancy Rate
70%

(3) ICU AND CCU UNITS

Intensive Care and Coronary Care Units (ICU and CCU): The number of ICU and CCU beds will be supported by a specific justification. The justification will address factors such as hospital mission, expected mission change, projected work load, and geographical location. If space is requested for a laboratory to support these special care functions, it will be supported by a similar justification. The following guidelines serve as a baseline for programming these units when an ICU or CCU capability is justified:

ADPL	Occupancy Rates
less than 11	55%
11-20	65%
21-35	70%
greater than 35	75%

- minimum of four ICU beds
- minimum of two CCU beds unless not collocated with ICU in which case the minimum is four

If the ADPL data for the ICU or CCU is not available, the following criteria may be used to estimate the ICU/CCU requirements.

- a. The recommended baseline for ICU bed computation is four percent of the total programmed bed capacity. The minimum number of ICU beds is four.
- b. The recommended baseline for CCU bed computation is two percent of the total programmed bed capacity. The minimum number of CCU beds is two CCU beds when collocated with an ICU or four beds when located in a separate unit.
- c. Baseline recommendations for ICU & CCU beds:

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Occupancy Rates

The acuity of inpatient has increased and this does not provide adequate beds. This section is currently under revision by others.

Total Bed Capacity	ICU Beds	CCU Beds
99 OR LESS	4	2
100 - 199	4 - 8	2 – 4
200 - 299	8 -12	2 – 4
300 - 399	12 -16	4 – 6
400+	AS JUSTIFIED	AS JUSTIFIED

(4) PLANNING EXAMPLE

- a. Total bed computation using ADPL to size all beds, including ICU and CCU.

Suppose ADPL is projected to be as follows:

Med/Surg/Pediatrics/ Psych/Light Care	= 200
ICU	= 10
CCU	= 5

Then the criteria dictate:

Med/Surg/Pediatrics/ Psych/Light Care beds	= 200/0.90	= 223 beds
Obstetrical beds	= 30/0.70	= 40
ICU beds	= 10/0.55	= 19
CCU beds	= 5/0.55	= 10

- b. Total bed computation using ADPL to size all except the ICU and CCU.

Suppose ADPL is projected to be as follows:

Med/Surg/Pediatrics/Psych/Light Care	= 200 (Projected ADPL)
Obstetrical	= 30 (Projected ADPL)

Then the criteria dictate:

Med/Surg/Pediatrics/Psych.	= 200/0.90	= 223 beds
ICU and CCU calculated as a percentage:		

$$\text{ICU BEDS} = 230 (\text{Projected M/S/P ADPL}) \times 0.04 = 9.2 = 9 \text{ beds}$$

$$\text{CCU BEDS} = 230 (\text{Projected M/S/P ADPL}) \times 0.02 = 4.6 = 5 \text{ beds}$$

- c. Uniformed Facility Accessibility Standards (UFAS) and ADA.

Facilities will be constructed within UFAS and ADA compliance standards: See Section 6.

DoD Space Planning Criteria for Health Facilities

Net to Gross Conversion Ratios

1.3.1 NET TO GROSS CALCULATIONS – DEPARTMENT TYPE METHODOLOGY

A net to gross conversion ratio for each department shall be used in programming all DoD Health Facilities. Each department shall be calculated separately. It is felt that this approach is more beneficial in accurately identifying overall building size.

The following steps are required:

1. Determine net area for each department.
2. Apply the specific net/gross ratio specific for each department.
3. Add all the department gross areas together.
4. Add the additional net/gross conversion factors to determine the overall building gross area.

Listed below are the department net/gross conversion ratios:

DEPARTMENT	NET/GROSS RATIO
1.0 General	NA
2.0 Administration	-
2.1 General Administration	1.40
2.2 Medical and Patient Libraries	1.35
2.3 Education & Training	1.35
2.4 Information Management	1.35
2.5 Patient Administration	1.35
3.0 Outpatient Services	-
3.1 Primary Care/Family Practice	1.35
3.2 Clinic of the Future	1.40
3.3 Pediatrics	1.35
3.4 Flight/Undersea Medicine & Soldier Readiness	1.35
3.5 Emergency Services	1.35
3.6 Women's Health	1.35
3.7 Wellness Clinic	1.25
3.8 Occupational Therapy	1.30
3.9 Physical Therapy	1.30
3.10 Audiology/Speech	1.35
3.11 Specialty Surgical Clinics	1.35
3.12 Orthopedics/Podiatry	1.35
3.13 Ophthalmology/Optomety	1.35
3.14 Urology	1.35
3.15 Specialty Medical Clinics	1.35
3.16 Cardiology/Pulmonary Services	1.35
3.17 Allergy/Immunization	1.35
3.18 Mental health	1.35
3.19 Preventive/Occupational Med.	1.35
3.20 Dental Clinics	1.35

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Net to Gross Conversion Ratios

4.0 Inpatient Services	-
4.1 Nursing Units	1.50
4.2 Labor & Delivery/OB Unit	1.50
4.3 Nursery	1.45
4.4 Surgery	1.60
5.0 Support Ancillary Service	-
5.1 Food Service	1.35
5.2 Logistics	1.25
5.3 Pathology	1.25
5.4 Radiology/Nuclear Medicine	1.50
5.5 Pharmacy	1.25
5.6 Vet Services	1.35
5.7 Chapel	1.20
5.8 Patient Services	1.35
5.9 Clinical Investigation	1.35

After all the department totals are calculated and totaled, the additional net/gross ratios need to be added. Listed below are the building net/gross conversion ratios, based on building type:

ALLOWANCES/ CATEGORIES	MEDICAL/ DENTAL CLINICS	AMBULATORY/ HEALTH CARE FACILITY	STATION/ COMMUNITY HOSPITALS	REGIONAL/ MEDICAL CENTERS
MECH. SPACE	13.5%	14.5%	15.0%	16.0%
ELECTR. SPACE	2.0%	2.0%	3.0%	3.0%
BUILDING CIRCULATION	14%	15%	15.5%	16%
HALF AREAS	1.5%	1.5%	1.5%	1.5%

NOTES:

1. For addition/alteration projects, up to 15% of the total altered net space may be added to the flexibility allowance to offset physical constraints in the existing facility. This increased allowance must be validated during design.
2. Buildings with multiple floors may need additional circulation ratios for stairs, elevators, etc.
3. For facilities with emergency power systems, other than Hospitals and Regional Medical Centers, increase electrical from 2.0% to 3.0%. Hospitals and Regional Medical Centers have a percentage that already assumes that emergency power systems are required.
4. Communication/network server spaces shall be programmed in Section 2.4: Information Management and throughout all departments.
5. Add 25% to mechanical areas for projects in Germany (requires all floor mounted equipment).
6. Add 8% to circulation areas for projects in Germany (natural daylighting requirements).

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Net to Gross Conversion Ratios

Three examples of recent projects (one for each service) are included below to illustrate how this net to gross conversion factor worked on actual designs.

REPLACEMENT MEDICAL/DENTAL CLINIC **HUNTER ARMY AIRFIELD** **FORT STEWART, GA**

Department	Program Net SF	Actual Dept. Gross	Actual Dept Net/Gross
Command Suite	1,950	2,560	1.31
Logistics	1,000	1,205	1.21
Clinic Administration	1,340	2,240	1.67
Primary Care Clinic	10,621	13,261	1.25
ENT/Audiology	500	660	1.32
Optht/Opt.	2,760	3,680	1.33
Immunization	280	286	1.02
Psychiatry	2,393	2,836	1.19
PT/OT	2,890	3,240	1.12
Pharmacy	2,105	2,230	1.06
Radiology	1,730	2,250	1.30
Pathology	1,765	2,165	1.23
Dentistry	4,954	7,480	1.51
Total	34,288	44,093	1.29

Area	Bldg.Gross	Net/Gross
Total Dept. Gross	44,093	-
Mechanical	4,248	9.6%
Electrical	850	1.9%
Building Circulation	7,324	16.6%
Half Areas	671	1.5%
Total Gross (GSF)	57,186	-
Net/Gross Ratio		1.668

NOTE:

Original Program Size:

57,775 GSF

Original Program Net/Gross Ratio:

1.685

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Net to Gross Conversion Ratios

OUTPATIENT CLINIC REPLACEMENT

EDWARDS A.F.B., CALIFORNIA

Department	Program Net SF	Actual Dept. Gross	Actual Dept Net/Gross
Command Suite	3,030	4,108	1.36
RMO	580	1,074	1.85
Info. Systems	1,952	2,625	1.34
TRICARE Admin.	1,120	1,870	1.67
Logistics	5,081	5,802	1.14
Primary Care Clinic	10,722	14,860	1.39
Allergy/ Immun.	300	306	1.02
Pharmacy	1,750	1,776	1.01
Radiology	1,785	2,906	1.63
Pathology	1,540	1,755	1.14
Total	27,860	37,082	1.33

Area	Bldg. Gross	Net/Gross
Total Dept. Gross	37,082	-
Mechanical	4,454	12.0%
Electrical	688	1.9%
Building Circulation	4,285	11.6%
Half Areas	401	1.1%
Total Gross (GSF)	46,910	-
Net/Gross Ratio		1.684

NOTE:

Original Program Size:

46,941 GSF

Original Program Net/Gross Ratio:

1.685

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Net to Gross Conversion Ratios

MEDICAL/DENTAL CLINIC

NAVAL STATION

MAYPORT, FLORIDA

	Program	Actual Dept.	Actual Dept
<u>Department</u>	Net SF	Gross	Net/Gross
Command Suite	1,960	2,683	1.36
Nursing Admin.	1,250	1,678	1.34
Info. Management	980	1,235	1.26
Patient Administration	1,320	2,048	1.55
Logistics	2,060	3,231	1.57
Clinic Administration	4,550	6,188	1.36
Primary Care Clinic	13,220	16,783	1.27
Aviation/Undersea	2,410	2,965	1.23
Allergy/Immun.	780	895	1.15
Pediatrics	3,980	5,682	1.43
Optht/Opt.	2,145	2,758	1.29
Preventive Medicine	2,300	3,107	1.35
Psychiatry	3,020	4,760	15.8
PT/OT	3,200	4,218	1.32
Pharmacy	2,940	3,209	1.09
Radiology	2,840	3,609	1.27
Pathology	2,320	3,053	1.32
Dentistry	10,421	12,240	1.17
Total	61,696	78,192	1.27

Area	Bldg. Gross	Net/Gross
Total Dept. Gross	78,192	-
Mechanical	8,897	11%
Electrical	880	1%
Building Circulation	13,775	18%
Half Areas	1,244	7%
Total Gross (GSF)	106,163	-
Net/Gross Ratio		1.721

NOTE:

Original Program Size:	103,994 GSF
Original Program Net/Gross Ratio:	1.685

DoD Space Planning Criteria for Health Facilities

Medical Mobilization Requirements

1.4.1 POLICY

DoD Medical Centers, hospitals and clinics which are programmed for inclusion in the Military Construction Program and which have an essential medical mobilization mission, will be considered for additional space for mobilization expansion as set forth below.

Contact the following offices to determine which DoD Medical Centers, hospitals and clinics are programmed for inclusion in the Military Construction Program:

For the Air Force, contact the Medical Logistics Division (SGML), Office of the Surgeon General.

For the Army, contact the Mobilization Planner at the U.S. Medical Commander Healthcare Operations, Plans Division, San Antonio, Texas. Phone: 210 221-6425.

For the Navy, contact the Bureau of Medicine (BUMED), Code 031, Washington, D.C.

1.4.2 SUBMITTAL OF REQUESTS FOR MOBILIZATION SPACE

Request from the Military Departments to program space for mobilization will be included with specific Project Proposal submissions (as set forth in DoD (6015.17) to OASD(TMA). These requests will provide at least the following information:

- A. A description of the specific mobilization mission assigned to the proposed hospitals.
- B. An estimate of the peak work load anticipated during periods of mobilization.
- C. The source and strength of staffing during mobilization periods.
- D. Additional space requested to support mobilization expansion.
- E. The estimated total additional cost for the additional mobilization capability.

1.4.3 PLANNING CRITERIA

Patient Bedrooms:

Type of Bedroom	Percent of Beds*	Bed Expansion Capability	Minimum Headwall	N.S.F. Per Bedroom**
One Patient	70	1	13'-6"	170
Two Patient	30	1	19'-6"	250

* The above room mix does not apply to isolation, seclusion or ICU/CCU bedrooms.

** Expansion capability may be programmed for light care bedrooms when light care facilities are integral to acute care inpatient facilities.

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Medical Mobilization Requirements

Logistical Support Areas:

- a. Medical Material Storage is authorized an additional 20 net square feet per each planned expansion bed.
- b. Central Sterile Supply is authorized an additional five net square feet per each planned expansion bed.

1.4.4 ADDITIONAL DESIGN CONSIDERATIONS:

Medical gas systems (as defined in MIL HDBK-1191) and mechanical/electrical and ventilation systems should be designed to support planned patient loads during periods of mobilization expansion.

Hospital transportation systems (elevators, lifts, etc.) should be analyzed to insure adequate capacities during expanded operations.

To assure that appropriate accommodations for mobilization expansion have been made, careful consideration should be given to the following:

- a. Patient bedroom equipment and furnishings.
- b. Food Service; and
- c. Triage location and access to facility.

DoD Space Planning Criteria for Health Facilities

General Administration

2.1.1 PURPOSE AND SCOPE

This section provides guidance for the space planning criteria for the administrative activities in DoD medical facilities. General Administration includes: Command Suite, office and office support space for key personnel and general administration staff (see definitions below), mailrooms and administrative conference rooms.

2.1.2 DEFINITIONS

Administrative Personnel: Administrative personnel are all personnel who do not counsel, diagnosis, examine or treat patients, but who do work that is essential for the accomplishment of the missions of a medical treatment facility. This does include military (assigned and borrowed), contract and civilian personnel. It does not include volunteers.

Commander: The commander is the person in command or in charge of the unit. This is a typical designation used in service hospitals and is equivalent to the “commanding officer”. This title is a designation conferred by written military orders and carries legal responsibilities. If the commander is a general officer, then he or she is referred to as the “Commanding General.”

Command Suite: The location of the office of the commander and the commander’s supporting staff.

Clinical Staff: The clinical staff is composed of those healthcare personnel who diagnose or treat patients, whose profession is licensed by a profession group and whose scope of practice is subject to credentials from the medical treatment facility.

Full-Time Equivalent (FTE): A work force equivalent to one individual working full time for a specific period, which may be made up of several part-time individuals or one full-time individual.

Free Standing Clinic: An outpatient clinic, which occupies a building or part of a building, but is not physically located with a hospital or Medical Center. This designation includes a clinic building with ambulatory surgery services.

General Administration: Administrative functions include: The office of the Commander and the Commander’s immediate staff, Nursing Administration, Resource Management (Comptroller functions), Personnel, Readiness (Air Force = Medical Readiness, Army = Plans, Training, Mobilization and Security and Navy = Plans, Operations, Medical Intelligence). General administrative staff also includes administrative personnel (clerks, secretaries, administrator and anyone whose primary responsibilities are administrative in nature (not clinical)) who work in any department, section or service of a medical treatment facility.

Hospital: A healthcare facility, which includes inpatient, and services to patients who are admitted for more than a 24-hour stay. A hospital will also normally contain clinics, which provide ambulatory patient services to patients who are not admitted for stays longer than 24 hours.

Key Personnel: The following key leadership positions in each service are normally located within the Command Suite:

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General Administration

ARMY	NAVY	AIR FORCE
Commander Director of Nursing or Chief Nurse Deputy Commander for Administration Deputy Commander for Clinical Services Troop Commander Troop Command Sgt. Major Command Sgt. Major	Commander Deputy Commander Director, Nursing Director, Surgery Director, Medical Director, Administration Director, Ancillary	Commander Deputy Commander Squadron Commander Administrator Chief Nurse Chief Hospital Services First Sergeant

Lead Agent: This office is responsible for administering a TRICARE Health Service Region. The Lead Agent may also be the commander of a major medical facility located in the area. The office functions as the focal point for health services and collaborates with the other military treatment facility commanders within the region to develop an integrated plan for the delivery of health care for beneficiaries.

Medical Center. A medical center is a Service designation for a type of hospital. Generally, Medical Centers have a graduate medical education mission.

Medical Treatment Facility (MTF): Any Army, Navy or Air Force fixed structure where DoD healthcare beneficiaries are provided with healthcare or preventive medicine services.

Noncommissioned Officer In Charge (NCOIC), Leading Chief Petty Officer (LCPO), Leading Petty Officer (LPO): These individuals are the senior enlisted person who typically have responsibility of overseeing other enlisted personnel in a unit, service or section.

2.1.3. POLICIES

Auditoriums: An auditorium sized to seat at least the officer and officer equivalent (contract or civil service) staff, will be programmed into each Medical Center. Auditoriums will not normally be programmed in clinics. Separate validation is required for facilities other than Medical Centers.

Conference Rooms: Each separate health facility will have a minimum of one conference room in the area of the commander. Medical Centers will have a minimum of two conference rooms in the area of the command suite. All departments (including administrative departments) in a medical treatment facility, which include more than eight officers or officer equivalents (contract or civil service), will be provided with a conference room. Conference rooms may be shared between clinics, and they may be shared between departments.

Classrooms: Classrooms will be provided in all freestanding clinics and hospitals for continuing education, staff computer systems training and patient education. Each freestanding clinic will be provided with one classroom and one computer training room. Each hospital will be provided with one classroom and one computer training room. Medical Centers will be programmed with a minimum of two classrooms and two computer training rooms.

Offices, Key Personnel: Key personnel, as identified in paragraph 2.1.2. of this chapter will be provided with private offices of the size stated in paragraph 2.1.5, Space Criteria.

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General Administration

Offices, Private: With the exception of the office provided for “Key Personnel,” all other private offices will be 120 net square feet as stated in paragraph 2.1.5, Space Criteria. Private offices will be provided to following personnel:

- a) Staff who must meet with patients/customers on a regular basis and hold private consultations/discussion.
- b) The senior officer and enlisted member of a department.
- c) Staff who supervise others and must hold frequent, private counseling sessions with their junior staff. This does not include staff who supervise a very small number of people, and who would only occasionally need private counseling space. These staff can use available conference rooms or other private areas for their infrequent counseling needs
- d) Any personnel who interview or counsel patients with patient privacy concerns.

Office, Non-Private or Shared Space: Personnel, who require office space, but not a private office, will be provided space in a shared office. Non-private or shared office space will be programmed at 60 net square feet per occupant.

2.1.4. PROGRAM DATA REQUIRED

What type of MTF is being programmed? (Medical Center, hospital, free standing clinic)
 Is the commanding officer a general officer?
 Organization chart for command and departments.
 Complete manning/staffing document by service, department and section, to include loaned labor and contract labor.
 Number of clinical staff members.
 Is there a receptionist in the command suite?
 Number of contract personnel working in the facility and their jobs/duties.
 Number of mailboxes required for U.S. Postal Service.
 Mailbag storage requirements.
 Number of postal clerks. Number of officers and officer equivalents assigned as FTE's.
 Number of FTE's by department and section.
 Number of Individuals requiring field equipment storage.
 Will a high density file storage system be used?
 List the administrative personnel to ensure a total personnel count.

Note to Programmer: Each of the military services has structured their health care organizations differently. Even within a service (Army, Navy or Air Force), there may be considerable variety in the way a health care unit is organized. Additionally, the services use different titles and in many cases the responsibilities, of what may seem to be equivalent titles, may differ (Deputy Command Administration and Administrator). It is important for the programmer to understand the concept of operation and the organizational structure of the specific medical treatment facility, which he or she is programming. The “Command Suite” is a good example of the need for the programmer to understand the concept of operation. In some organizations, the MTF's key personnel are located in the Command Suite, especially in smaller facilities. In other organizations, especially larger ones, the key personnel are the heads of departments with a number of subordinates. In such cases, the concept of operation may dictate that the key personnel are not located in the “Command Suite,” but instead are located with their department.

DoD Space Planning Criteria for Health Facilities

General Administration

2.1.5. SPACE CRITERIA

2.1.5.1. Command Suite: (in hospitals, Medical Centers or free standing clinics)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Commander /Lead Agent Used authorized rank of commander as opposed to actual rank of person in position.	18.58	200	O-3 commander of a freestanding clinic (delete toilet)
	22.30	240	O-4 Commander of a Comprehensive Health Care Clinic, or Clinic Command (delete toilet)
	27.87	300	O-5 Commander (includes 70 NSF toilet and closet)
	29.73	320	O-6 or higher Commander/Lead Agent (includes 70 NSF toilet and closet)
Key Personnel in a Medical Center	16.72	180	Per projected FTE (see chart of key personnel in paragraph 2.1.2).
Key Personnel in a Hospital	14.86	160	Per projected FTE (see chart of key personnel in paragraph 2.1.2).
Key Personnel in a Clinic	13.01	140	Per projected FTE (see chart of key personnel in paragraph 2.1.2).
Private Office for other than Key Personnel	11.15	120	Per projected FTE (see chart of key personnel in paragraph 2.1.2).
Standard Area for Each employee in a shared office.	5.57	60	Per projected FTE.
Secretary with Visitor Waiting	11.15	120	Per projected FTE, for an executive secretary to key personnel (see chart of key personnel in paragraph 2.1.2.) Applies to all secretaries needing visitor waiting.
Office Automation Support Room	11.15	120	Location for Command Suite copy machine, fax machine, central printer, file cabinet (unsecured) and supplies.
Command Suite Visitor Waiting with Receptionist	16.72	180	Per project receptionist FTE. One per Command Suite with General Officer commanding. Receptionist work station plus waiting. Waiting is 5 seats plus 1 handicapped seat.
Conference Room in the Command Suite of a free standing clinic or an ambulatory surgery center.	27.87	300	One per freestanding clinic or an ambulatory surgery center.
Conference Room in the Command Suite of a hospital.	37.16	400	One per hospital.

DoD Space Planning Criteria for Health Facilities

General Administration

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Conference Rooms in a Medical Center	55.74 37.16	600 400	Two conference rooms per command suite of a medical center one at 400 and one at 600 nsf. Note: a 400 nsf conference room can seat approx. 20, a 600 nsf conference room can seat approx. 50 (not all at the conference table)
Auditorium		varies	One per Medical Center. Program adequate fixed seating for all officer equivalent FTEs. Calculate area as the total of 8 nsf per fixed seat plus 5% of seating for wheel chairs, at 25 nsf per handicapped seat.
Command Suite Storage	5.57	60	One per command suite.
Command Suite Kitchen	5.57	60	One per Hospital or Medical Center Command Suite

2.1.5.2. Nursing Administration (in a freestanding clinic, hospital, or Medical Center) – See 2.1.5.1, Command Suite.

2.1.5.3. Chief Hospital Services (Deputy Cdr for Clinical Services, Directors: Surgery, Medicine Ancillary) (in a freestanding clinic, hospital, or Medical Center) – See 2.1.5.1, Command Suite.

2.1.5.4. Deputy Commander (Deputy Commander of Administration, Director of Administration, Administrator) (in a free standing clinic, hospital, or Medical Center) – See 2.1.5.1, Command Suite.

2.1.5.5. Squadron Commander (Troop Commander) (in a freestanding clinic, hospital, or Medical Center) – See 2.1.5.1, Command Suite.

2.1.5.6 Personnel (in a freestanding clinic, hospital, or Medical Center)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Unit Distribution Boxes	5.57	60	In a freestanding clinic.
	11.15	120	In a hospital
	16.72	180	In a medical center
Unit Distribution Sorting Area	5.57	60	In a freestanding clinic.
	11.15	120	In a hospital or medical center.
Administrative Functions		varies	Provide appropriate private and/or shared office space based on authorized personnel working in this department. (para. 2.1.5.9.)

DoD Space Planning Criteria for Health Facilities

General Administration

2.1.5.7. Medical Readiness (in a freestanding clinic, hospital, or Medical Center).

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Secure Storage Room	5.57	60	For a secure files and/or safe.
Field Equipment Storage	11.15	120	Minimum. For Air Force mobility bags, Army TA-50 and unit items of issue (gas mask, etc.) 2 nsf for each individual requiring such storage.
Weapons Room		varies	Special justification.
Deployment Center	11.15	120	Special justification.
Situation Room	37.16	400	One per medical center
Also referred to as an Emergency Operations Center (EOC) or a Medical Control Center (MCC).	27.87	300	One per hospital.
	18.58	200	One per freestanding clinic if special justification provided (only MTF on installation).
Situation Room –storage area	2.78	30	1 per room. Can be part of situation room. For dedicated storage, including a cabinet for omm.. And maps.

2.1.5.8. Administrative Support Spaces (in a freestanding clinics, hospital or Medical Center):

Administrative functions/positions can be found in almost all elements of the organization of military healthcare facilities, for example, a secretary or an administrator in the Department of Surgery. The space criteria for these administrative support elements is the same and is consolidated in this section of the criteria.

2.1.5.8.1 Space for Personnel. Each of the above sections (Sections 2.1.5.2 thru 2.1.5.8) may be one person or may be an entire department with numerous administrative personnel. If there are numerous administrative FTE's in a section or department, then use the sizing data below to allocate space. An understanding of the concept of operation and the specific organization chart is essential as noted in paragraph 2.1.4.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	

Personnel Space:			
Private Office for other than Key Personnel	11.15	120	Per projected FTE.
NCOIC/LCPO/LPO	11.15	120	Per projected FTE.
Standard Area for Each employee in a shared office.	7.43	60	Per projected FTE.
Secretary with visitor waiting	11.15	120	Per projected secretary FTE.

DoD Space Planning Criteria for Health Facilities

General Administration

2.1.5.8.2 Common Administrative Space. There are areas for functions, which are common to each of the above sections or departments and to other clinical and support departments in a health facility. In these cases, common support areas can be shared when the section or department size justifies sharing. Any department or section with ten or fewer personnel should share office automation room (copier, fax, printer, etc.).

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

Common Space which may be shared:
--

File Storage, when combined in another space, i.e. with secretary.		varies	Normal file storage is provided as part of the furniture for each individual workstation (one file drawer minimum). Additional file storage is provided for with lateral file cabinets. For rooms where additional file storage is added to another space, add 10 nsf for each file cabinet. Secured file storage for classified working documents should be placed in an occupied room and not placed in a file storage room, with the exception of the secure storage room in Medical Readiness.
File Storage Room	9.29	100	Minimum. Provide 100 nsf for ten or less lateral file cabinets. Add 10 nsf for each additional file cabinet above ten. Requirement may be reduced by 44.8% if "space saver" document storage system is used.
Office Automation Support Room	11.15	120	Location for copy machine, fax machine, central printer, file cabinets (unsecured) and supplies. For use by this department only.
Central Reproduction	11.15	120	Minimum. Add 20 nsf for every 100 FTEs' (for entire facility) or fraction thereof, above the first 100 FTEs. Provide one per MTF. Refer to Section 2.4: provide one central reproduction area in either this section or Section 2.4, but not both.

DoD Space Planning Criteria for Health Facilities

General Administration

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

Common Space which may be shared (continued):

Conference Room within Administrative Departments Note: if there are more than 16 officers or officer equivalent FTEs, then provide additional conference rooms. Example: 18 officers would get one 250 nsf and one 120 nsf room. 24 officers would get two 250 nsf conference rooms.	23.23	250	Provide one for an administrative department or combination of departments with more than eight officers or officer equivalent FTEs. Provide an additional conference room when there are more than sixteen officer FTEs.
	11.15	120	Provide one per administrative department with less than eight officers or officer equivalent personnel. <u>Note:</u> departments with less than eight officers or officer equivalent, need to share this conference room with one or more other departments until there are a combined minimum of eight officers.
Toilets		varies	See Section 6.1.
Storage Room	5.57	60	One per department.
Staff Lounge		varies	See Section 6.1.
Staff Locker Room		varies	See Section 6.1.
Janitor's Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Medical and Patient Libraries and Resource Centers

2.2.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of Medical Libraries, Patient Libraries and Patient Resource Centers in medical facilities.

2.2.2. DEFINITIONS:

Medical Library: A Medical Library provides access to knowledge-based information resources and services to the clinical and administrative staff of a hospital or medical center. These resources include indexes, professional journals, reference and specialty textbooks, technical reports, and audiovisual/multimedia in print, electronic, and micrographic formats. The Medical Library supports clinical and management decision-making, performance-improvement activities, patient and family education, continuing education of the staff, and research.

Patient Library: A patient library provides reading material to inpatients during their stay in a hospital or medical center.

Patient Resource Center: Patient resource centers provide a location where patients can learn about preventative medicine and healthy lifestyles. Such centers will also provide various resources to enable patients to research and learn about specific health problems. Such a center will include handout publications, reference material and computer work stations with internet access.

2.2.3. POLICIES:

Medical Libraries: Medical Libraries shall be programmed in DoD hospitals and Medical Centers. Medical Libraries may also be programmed in freestanding clinics, which are the main health facility for a DoD installation.

Patient Libraries: Patient libraries will be programmed in hospitals or medical centers and may be located adjacent to the Medical Library to share staff resources. Patient Libraries in hospitals and medical centers may be combined with Patient Resource Centers.

Patient Resource Center: In a hospital or medical center, the Patient Library should be combined with the Patient Resource Center.

2.2.4. PROGRAM DATA REQUIRED:

Concerning the Medical Library:

Is this medical library for a hospital? (YES/NO)

Is this medical library for a Medical Center? (YES/NO)

Is this medical library for a freestanding clinic? (YES/NO)

Does this medical library have existing holdings? (Books, journals, etc.) If so how many linear feet of shelving is currently used?

Is there a medical librarian FTE?

How many personnel (FTEs) are on the medical library staff?

How many volunteers work in the medical library?

What is the maximum number of volunteers working in the medical library at any one time?

DoD Space Planning Criteria for Health Facilities

Medical and Patient Libraries and Resource Centers

Concerning the Patient Library:

Is this a patient library for a hospital or a Medical Center?
 Is there a librarian (FTE) for the patient library?
 How many personnel (FTEs) are on the patient library staff?
 How many volunteers work in the library?
 What is the maximum number of volunteers working in the library at any one time?

Patient Resource Center:

Is this a patient resource center for a hospital or medical center?
 Is this a patient resource center for a freestanding clinic?
 Is there a manager FTE for this patient resource center?
 How many health care providers work in this MTF?

2.2.5. SPACE CRITERIA:

For A Medical Library:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Medical Librarian's Office	11.15	120	If FTE projected.
Circulation/Reference Desk Staffed by a Library Assistant	9.29	100	If FTE projected.
Reading Area	22.30	240	One per Medical library in a Medical Center or hospital.
	11.15	120	One per medical library in a freestanding clinic.
Medical Staff Work Area	11.15	120	One per library with librarian FTE for the sorting of books, etc.
General Holdings (Library Stacks)	37.16	400	One per hospital or medical center. Add an additional 200 nsf for a Medical Center. Additional space must be justified by a study. (Rule of thumb: NSF=FTE X .25 X 10) FTE = total number of employees in hospital.
	27.87	300	One per frees standing clinic.
Reference Holdings	33.45	360	Per Medical Library for hospitals/med. ctrs.
Copying Area	5.57	60	Per Medical Library for hospitals/med. ctrs.
Computer Work Stations	1.86	20	Minimum. 20 nsf per workstation.

DoD Space Planning Criteria for Health Facilities

Medical and Patient Libraries and Resource Centers

For A Combined Patient Library and Patient Resource Center in a hospital or Medical Center:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Patient Librarian's Office	11.15	120	If FTE projected. Note that it may be that the Medical Librarian also serves as the librarian for the Patient Library, if so, provide only one office in the Medical Library.
Circulation Desk Staffed by a Library Assistant or Volunteer	9.29	100	If FTE projected.
Reading Area	22.30	240	One per Patient library.
Medical Librarians' Work Area	11.15	120	One per Patient library for the sorting of books, etc.
General Holdings (Library Stacks)		varies	400 nsf for a hospital, add an additional 200 nsf for a Medical Center. Additional space must be justified by a study.
Copying Area	5.57	60	Per Patient Library for hospitals/med. ctrs.
Book Cart Assembly and Holding Area		varies	40 nsf per hospital nursing unit.
Volunteers' Room		varies	60 nsf for maximum number of volunteers on duty at any given time.
Computer Work Stations	1.86	20	Minimum. 20 nsf per workstation.
Conference Room	11.15	120	If there is an authorized librarian.

For a Patient Resource Center:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Patient Resource Center Manager Desk	9.29	100	One per Patient Resource Center in a free standing clinic. (Resource Manager and circulation desk staff are the same when combined with a patient library.)
Copying Area	5.57	60	Per Patient Library for hospitals/med. ctrs.
Reading Area	22.30	240	One per resource center in a freestanding clinic.
	31.59	340	One per resource center in a hospital.
	50.17	540	One per resource center in a medical center .
Publications Storage Room	9.29	100	One per patient resource center in a free standing clinic
	13.94	150	One per resource center when combined with a patient library in a hospital.
	18.58	200	One per resource center when combined with a patient library in a medical center.

DoD Space Planning Criteria for Health Facilities
Medical and Patient Libraries
and Resource Centers

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Computer Work Stations	5.57	60	Minimum of two 30 nsf seated work stations. Provide 1 work station for every 10 healthcare providers in the mtf. Add 12 nsf for each additional workstation. First two workstations must be handicapped accessible. All remaining workstations are standing workstations. Maximum number of work stations is 12.
Conference Room	11.15	120	For patient meetings.

DoD Space Planning Criteria for Health Facilities

Education and Training

2.3.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of an Education and Training Department in a hospital or medical center.

2.3.2. DEFINITIONS:

Administrative Personnel: Administrative personnel are all personnel who do not counsel, diagnosis, examine or treat patients, but who do work that is essential for the accomplishment of the missions of a medical treatment facility. This does include military (assigned and borrowed), contract and civilian personnel. It does not include volunteers.

Education and Training: The administrative section responsible for managing the education and training of the staff in a medical facility. This training or education is provided to staff members to fulfill a number of needs to include: continuing medical education, phase two training for enlisted skills, new employee training and new procedures training.

Skills Laboratory: This is a training room, which is a “mock-up” of a patient bedroom, complete with the bed, the headboard, privacy curtain and all other equipment typically found in a patient bedroom. The room is larger than a single bedroom to accommodate the instructor and students. It is in this room that new employees are provided training, often in the standard operating procedures for treatment of an inpatient.

2.3.3. POLICIES:

Education and Training: Each freestanding clinic, hospital, and medical center will have an Education and Training area.

2.3.4. PROGRAM DATA REQUIRED:

Is there a staffed Education and Training Department?
How many FTE's are there in this Department?
How many phase two training programs are there in this facility?
Is this for a hospital, a Medical Center or a free standing clinic?
List the administrative personnel to ensure a total personnel count.

DoD Space Planning Criteria for Health Facilities

Education and Training

2.3.5. SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Chief of Training and Education	11.15	120	If FTE projected.
NCOIC/LCPO/LPO for Training	11.15	120	If FTE projected.
Training Personnel		varies	60 nsf per FTE of Ed & Trg personnel projected.
Classroom	55.74	600	One per hospital, two per Medical Center. Includes area for instructor and screen (100 nsf) and seating (40 seats). Classrooms should be sub dividable.
	37.16	400	One per freestanding clinic (20 seats).
Computer Training Classroom	13.00	140	Minimum. Include only if individual computer based training, such as ACLS re-certification, is provided.
	22.30	240	Minimum. Include only if group computer based training, such as an ACLS class, is provided.
Computer Based Training Room (20 stations)	33.45	360	One per hospital, two per Medical Center includes area for instructor (20 stations).
	18.58	200	One per freestanding clinic (12 stations).
Ed. & Trg. Storage	9.29	100	Per freestanding clinic.
	18.58	200	Per hospital or a Medical Center.
Office automation/files room.	11.15	120	One per hospital or Medical Center.
Audio/Visual Supply Room	5.57	60	One per hospital or Medical Center.
Skills Laboratory	33.45	360	One per hospital or Medical Center.
Toilets		varies	See Section 6.1.
Janitor's Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Information Management

2.4.1. PURPOSE AND SCOPE:

This document specifies the space planning criteria for information systems in DoD military facilities. These criteria provide the space necessary to adequately accommodate information systems management operations, telephone switchboard, central control and computer center.

2.4.2. DEFINITIONS:

Active Data Storage Room - Area where tape or removable disk backups of active data files are stored.

Ambulatory Data System (ADS) - Provides ambulatory data as a by-product of the health care delivery process. Captures patient specific encounter, diagnostic, and treatment data.

Archived Storage - Secured area for storage of inactive media such as microfiche and tapes used as backup. Also included in this area are original copies of PC software.

Audiovisual Distribution System – A separate communications equipment room, with sufficient space for personnel circulation and equipment maintenance, will be provided in hospitals and medical centers for the head end equipment, such as television, public address and program distribution, radio, and data communications equipment room. This room should be adjacent to the telephone systems equipment room. This function will be supported by a communications room in clinics.

Central Alarm Room: A central room for wall mounted graphic displays, annunciator displays and other monitoring and control equipment.

Central Reproduction – A central copy area for the entire medical facility, for large scale reproduction requirements not normally performed in smaller department copy areas.

Centralized Credentials and Quality Assurance System (CCQAS) - A system, which supports DoD's quality assurance program by maintaining the credentials status of DoD healthcare providers.

CHAMPUS Detail Information System (CDIS) - Supports online, near real-time accessing and retrieval of individual detailed CHAMPUS information.

Communications Room – A telecommunications room is the termination of horizontal and backbone cables to compatible connecting hardware. A telecommunications room also provides a controlled environment to house telecommunications equipment, connecting hardware, and splice closures serving a portion of the building. The telecommunications room provides for the administration and routing of the equipment cable/cords from the horizontal cross connect to the telecommunications equipment.

Composite Health Care System (CHCS) - A DoD-wide Automated Information System (AIS) that includes the following modules: Patient Appointment System (PAS), Patient Administration (PAD), Laboratory (LAB), Radiology (RAD), Clinical Dietetics, Pharmacy (PHARM), and Nursing.

Composite Health Care System II (CHCS II) - Designed to replace CHCS, this composite system will provide integrated support to the clinical delivery processes within MHS MTF's including all aspects of ancillary, order entry, and documentation in peacetime and wartime.

Computer Room - Space where the main computers and associated peripherals (e.g. tape drives, disk drives, line printer, etc.) are housed.

Note: The following is not a comprehensive list, but includes some items. There are other items that may be included. Verify the latest systems. Some of the systems that may be included in the computer room are:

DoD Space Planning Criteria for Health Facilities

Information Management

SNPMIS (Special Needs Program Management Information System), PHCA (Preventative Health Care Application), NMIS (Nutrition Management Information System), DVIS (Defense Vision Information System), DOEHRS (Defense Occupational and Environmental Health readiness System), DBSS (Defense Blood Standard System), CIS (Clinical Information System), CHCS II (Composite Health care System II), and CCEP (Comprehensive Clinical Evaluation Program).

Defense Medical Logistics Standard System II (DMLSS II) - This composite system will provide integrated support to all logistics functions within the MHS environment including all aspects of facilities, equipment, and materiel management across the operational continuum.

Defense Medical Human Resource System (DMHRS) - Provides automated system support for calculating military and civilian labor time and cost for DoD health care activities.

Emergency Power - A system of electrical feeders and branch circuits meeting the requirements of the National Fire Protection Agency (NFPA 70), National Electric Code, and intended to supply alternate power to a limited number of prescribed functions vital to the protection of life and safety, with automatic restoration of electrical power within 10 seconds of power interruption.

Local Area Network (LAN) - A means of connecting personal computers and/or terminals and sharing application programs, data and email through various cabling and switching themes so that users can communicate with each other or share common information. A LAN typically exists in a single building, hence the term "local."

Medical Expense and Performance Reporting System Expense Assignment System, Version IV (MEPRS EAS IV) - Provides support to standardized reporting of expenses, manpower, and workload data at the work center level within DoD facilities.

Medical Information Systems - An integrated computer system consisting of individual specialty applications modules; for example: Pharmacy, Radiology, Laboratory, Financial Management, and Records Management.

Multimedia Self-Help Area - An area used by all hospital staff in creating a wide variety of graphic materials such as posters, flyers, overhead transparencies, photographic slides. Typically this area would have PC's with appropriate graphics applications software to produce charts and graphs, as well as appropriate peripheral devices such as color printer/plotters, laser printers, page readers, etc.

PC Configuration Area - The area in which personal computers are assembled, tested, and repaired. Testing software is accomplished in this area as well.

Multiplexor - A device that transmits two or more signals on a single circuit or frequency.

Personal Computer (PC) - A computing system designed for individual use.

Peripheral Device - Any accessory device such as a printer or modem that is externally connected to a computer.

Uninterruptible Power Supply (UPS) - A system of batteries and capacitance power storage devices to preclude failure of critically important information processing systems. During an electrical power failure, it provides continuous power to a computer system, as well as and other essential building components, for a specified period of time.

DoD Space Planning Criteria for Health Facilities

Information Management

2.4.3.POLICIES:

Communication Rooms: Include these rooms as programmed space (separate from electrical or mechanical areas) and provide sufficient quantity throughout every medical facility. "EIA/TIA 569" (or most current regulation) requires 110 nsf of communications room per 10,000 gross square feet of building area.

Central Alarm Room: A central alarm room will be provided in hospitals and medical centers. This room size will be based on the quantity of wall mounted graphic displays, annunciator displays and other monitoring and control equipment. Some examples of equipment in this room are: EMCS, elevator monitor, fire protection alarms, security systems, and medical gas alarms.

Central Computer Area: Network as many departments into one central computer area as possible, including dictation, lab, pharmacy, radiology services, and patient records systems. This would help consolidate staff and computer support areas. Other areas that may also be located in Information management are: paging, and teleconference rooms (VTC). Refer to Section 5.4 for Radiology and Nuclear Medicine computer requirements, as well.

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.1.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for Section 2.1, General Administration.

2.4.4. PROGRAM DATA REQUIRED:

Program Data for Communications and Information:

Computer Room

List all approved systems which require a central server and/or a computer in a central computer room under the control of the MTF Information Management Officer.

Estimated square footage of each system listed above (note some systems can be loaded onto the same computer).

Are computers configured and is software installed and tested on computers at this MTF?

How many personal computers are projected to be in the MTF?

Is training on computer systems and/or software provided in this facility?

How many separate types of software require that MTF personnel receive training (CHCS, DMLSS, etc)?

Does this facility include a requirement for data archiving?

Is there a need for uninterruptible power supply (UPS)? How many UPS components?

Storage (types of requirements? Explain).

Is there a multimedia self-help area?

If training facility, projected number of classes per year?

If training facility, average number of students per class.

Will the help desk/tech. support be on site or at a remote location?

Will radiology/nuclear medicine computer systems (PACS/DINPACS) be located in Information Management or in Radiology/Nuclear Medicine?

Will there be a need for a central reproduction room for the entire medical facility?

Will there be a need for a separate diagnostic video tele-conferencing room (VTC)?

Is there a requirement for emergency power in the main computer room, in the communications room, in the central alarm room, in the audiovisual distribution systems room?

DoD Space Planning Criteria for Health Facilities

Information Management

2.4.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

<u>Administration</u>			
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Chief Information Management	11.15	120	One per MTF when FTE projected.
Secretary	11.15	120	When FTE projected. Includes waiting area
Information System Security Officer	11.15	120	One per MTF when FTE projected.
NCOIC/LCPO/LPO Office	11.15	120	Provide one per FTE projected.
Computer Operator(s) Office(s)	5.57	60	Minimum, or 60 nsf per projected FTE operator.
Help Desk/Tech.	5.57	60	60 nsf per each FTE projected, if located on site.
Hospital Information Volunteer Coordinator			Refer to Patient Services, Chapter 5.8, for criteria.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.

<u>Staff Support</u>			
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Conference Room/Library	23.25	250	Provide separate conference room only if there are 14 or more FTEs assigned. If less than 14 FTEs, delete conference room and add 150 NSF to lounge and combine conference/lounge in to one space.
Central Reproduction	11.15	120	Minimum. Add 20 nsf for every 100 FTEs' (for entire facility) or fraction thereof, above the first 100 FTEs. Provide one per MTF. Refer to Section 2.1: provide one central reproduction area in either this section or Section 2.1, but not both.
Office Automation Support Room	11.15	120	Location for Information Management department copy machine, fax machine, printer, file cabinet and supplies.
Forms and Storage	13.94	150	One per MTF. Includes space for forms and DoD/Using Service manual storage.
Forms Clerk	5.57	60	60 nsf per each FTE projected, if assigned.
Equipment Supply Storage	9.29	100	Minimum. Add 20 nsf for every 100 FTEs' or fraction thereof above the first 100 FTEs.
Active Data Storage Room	9.29	100	One per MTF.

DoD Space Planning Criteria for Health Facilities

Information Management

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Staff Support (continued):			
Archive Storage	9.29	100	If archiving is accomplished in the MTF.
Computer Equipment Storage	18.58	200	Minimum, if computer configuration and repair occurs at the MTF. Add one nsf for each computer in the MTF over 200.
PC Configuration / Repair Area	9.29	100	Minimum. One station when personal computers are configured at the MTF. Add an additional 50 nsf for every 50 personal computers in the MTF in excess of 100. Maximum 300 nsf.
Staff Lounge		varies	See section 6.1.
Staff Lockers		varies	See section 6.1.
Staff toilets		varies	See Section 6.1
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See section 6.1.
Computer Room:			
Medical Information Systems	92.91	500	Minimum. Provide 500nsf for MTF's less than 40,000 gsf. Provide an additional 35 nsf for each additional 1,000 gsf of MTF building area greater than 40,000 gsf. 2000 nsf maximum.
Radiology Computer Systems (PACS)	37.16	400	Minimum. Provide 400 nsf for MTF's with 6 or less radiology rooms. Add 50 nsf for each additional radiology room. Determine location of system, either in this department or in the Radiology/Nuclear Medicine.
Computer Room Support:			
Computer Training Class			See section 2.3 Education and Training.
Storage Area	9.29	100	One for training material.
Multimedia Self-Help Area	14.87	160	Provide only if required. For use by all staff in creating presentations.
Telephone Switch Room	37.16	400	Provide if telephone switch programmed.
Communications Room	10.22	110	Minimum. Distributed throughout the facility. 1 room per 10,000 nsf of building space. Consult EIA/TIA 569. Maximum runs to this room should not exceed 295 feet.
Audiovisual Distribution System	11.15	120	Minimum. Design of the room including utility support shall be in accordance with EIA/ TIA 568/569. A separate audiovisual distribution system room will be provided in hospitals and medical centers only.

DoD Space Planning Criteria for Health Facilities
Information Management

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
<u>Computer Room Support (cont'd):</u>			
UPS Area	5.57	60	Minimum. Provide 60 nsf per each UPS component. Verify if UPS required. Typically provided within the computer room.
Central Alarm Room	11.15	120	Minimum. Provide in hospitals and medical centers. Also refer to Sections 3.5 and 5.2. Provide this room in only one location. If function is required, a special study is recommended to ensure that all required functions can be accommodated in recommended space.

DoD Space Planning Criteria for Health Facilities

Medical Administration

2.5.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of Patient Administration in a medical facility. Patient Administration includes TRICARE offices, admissions & dispositions, inpatient and outpatient records sections, and transcriptions.

2.5.2. DEFINITIONS:

Administrative Personnel: Administrative personnel are all personnel who do not counsel, diagnosis, examine or treat patients, but who do work that is essential for the accomplishment of the missions of a medical treatment facility. This does include military (assigned and borrowed), contract and civilian personnel. It does not include volunteers.

Admission and Disposition Clerk: A medical records technician, who interviews patients being admitted to the hospital or Medical Center and who creates the inpatient record and all documents necessary for the admission.

Birth Clerk: The birth clerk is responsible for birth related records such as birth certificates and counseling/applications for social security numbers.

Cashier: The cashier is the person responsible for receiving, holding and disbursing cash to and from hospital or Medical Center patients as a result of diagnostic care or treatment.

Decedent Affairs Clerk: The decedent affairs clerk is the person responsible for the administrative details (survivor counseling, paperwork and notifications) incidental to the death of a patient.

Extended Ambulatory Records (EAR): Extended Ambulatory Records are the records used to document ambulatory or "same day" surgery and observation status. These records are treated in the same manner as an inpatient record and they are kept on file for the same period of time as an inpatient record. They are stored within the inpatient records room, or a similar secure area.

Inpatient Records: Inpatient records exist in hospitals and in clinics (where they keep records of active duty members admitted to civilian medical treatment facilities). They provide a record of diagnosis and treatment. The creation and maintenance of inpatient records is governed by Service regulation and Retention Schedules. The coding of the diagnoses and procedures is largely governed by the International Classification of Diseases. The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) is designed for the classification of morbidity and mortality information for statistical purposes, for the indexing of hospital records by disease and operation, and for the data storage retrieval. The clinical modification of the ICD-9 was developed by the National Center for Health Statistics for use in the United States. While each of the three services have their own patient record forms and separate training for patient administration technicians, who work with records, the recording within records of diseases and procedures is done in accordance with the ICD-9-CM. (See <http://www.icd-9-cm.org>).

MEDICARE Eligible: A patient who is 65 years of age or older and is qualified for federal reimbursement for healthcare.

Outpatient Records: Outpatient records provide a record of diagnostic and treatment encounters of ambulatory patients in the clinic or a hospital or in a freestanding clinic. Outpatient records are maintained (filed) separately from inpatient records and may be kept in a hospital, Medical Center or a freestanding clinic.

DoD Space Planning Criteria for Health Facilities

Medical Administration

Third Party Collection: Third party collection is that effort to obtain payment for health care services from other than the patient. The first two parties to a health care encounter are the patient and the provider or the organization, which the provider represents. The third party (not existing in all cases) is a payer other than the patient. Third Party payers may be insurance companies, employers or, in some case, governmental agencies.

TRICARE: A Tri-Service managed care program that provides all health care for DoD beneficiaries within a DoD geographical region. It integrates Medical Treatment Facilities (MTF) direct care and TRICARE civilian provider resources by forming partnerships with military medical personnel and civilian contractors. There is typically both a military TRICARE section and a TRICARE Service Center (TSC) run by civilian contractors in every MTF. Planners must review the regional TRICARE contract to determine if specific amount of minimum space for the contractor is stated for the TSC. Note: TSC space is not necessarily in the same area as Medical Administration. Military TRICARE sections are separate and distinct from TSC's.

2.5.3. POLICIES:

Patient Records. Patient records in DoD facilities will be created, managed and stored in a manner, which maintains patient privacy. Outpatient records will be stored in a single area or may be stored in multiple areas but they are located in dedicated rooms and kept from other records such as inpatient records. Extended Ambulatory Records will be kept as inpatient records and will be separate from outpatient records, even if created and stored in a freestanding clinic.

2.5.4. PROGRAM DATA REQUIRED

Projected number of non-MEDICARE eligible outpatient records?
 Projected number of MEDICARE eligible outpatient records?
 Number of decedent affairs clerks?
 Holding period for inpatient records?
 Number of FTE, Admission and Disposition Clerks?
 Projected number of admissions annually?
 Number and positions of personnel in TRICARE Service Center (TSC)?
 Number and positions of personnel in military TRICARE section?
 Number of physicians on the staff of the hospital or Medical Center?
 Number of Liaison personnel from Services other than the Service of the MTF?
 Number of patient record clerks, FTEs, working in outpatient records?
 Number of patient record clerks, FTE, working in inpatient records?
 Are ambulatory surgery services provided?
 Projected number of Extended ambulatory records?
 Will high-density file storage systems be used for records storage?
 List the administrative personnel to ensure a total personnel count.

DoD Space Planning Criteria for Health Facilities

Medical Administration

2.5.5. SPACE CRITERIA (for Hospitals and Medical Centers and for free-standing clinics which maintain EAR's)

2.5.5.1. Patient Administration Office

Coordinate the terms below, since each service may have service specific terminology for various medical administration functions.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Chief of Patient Administration	11.15	120	If FTE projected
NCOIC/LCPO/LPO Patient Administration	11.15	120	If FTE projected
Medical Records Clerks	5.57	60	Minimum. Provide one per FTE of medical records technician personnel projected.
Storage Room	5.57	60	One per Patient Admin Section.
Office Automation Room	11.15	120	One per Patient Admin. Section.
Hospital Treasurer	11.15	120	If FTE projected
Hospital Cashier	5.57	60	Secure room with a payments window
Patient Counseling Room	11.15	120	One per Patient Admin. Office
Birth Clerk(s)	11.15	120	One private office for each FTE projected.
Decedent Affairs Clerk(s)	11.15	120	Per decedent affairs clerk FTE projected
Benefits Counselor(s)	11.15	120	One private office for each FTE projected.
Patients' Effects Storage	11.15	120	Secure room for patient luggage
Medical Board/Disability Board or Physical Evaluation	5.57	60	Provide 60 nsf per FTE projected.
Service Liaison Offices	5.57	60	Provide 60 nsf for each (Army, Navy Air Force, and Marine Corps) Service representative attached to the hospital.
Third Party Collection	5.57	60	Per Third Party Collection clerk FTE projected
Air Evac.	5.57	60	One per Patient Admin Section.
Coding Section for all Records	11.15	120	Minimum area for MTF with inpatient services. Add an additional 60 nsf per coding clerk above two.
Medical Statistics and Quality Assurance Section	11.15	120	Minimum area for MTF with inpatient services. Add an additional 60 nsf per clerk above two.

DoD Space Planning Criteria for Health Facilities

Medical Administration

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Patient / Family Waiting Supports several functions of the medical administrative sections/offices. Most patient using these areas will be seen by A&D clerks, Air Evac. Clerks, and Special Action/Correspondence clerks. Sizes listed are for each independent function. These are three independent sections/offices that may be co-located. Co-location of these functions could reduce the overall size.	9.29	100	For freestanding clinic, which maintains EARs. Maximum.
	18.58	200	For hospitals with up to 100 average daily inpatients.
	37.16	400	For hospitals with more than 100 average daily inpatients.
Toilets		varies	See Section 6.1

2.5.5.2. TRICARE Service Center (in freestanding Clinics, Hospitals, and Medical Centers) Planner must review the regional TRICARE contract to determine if specific minimum space requirements exists (minimum amount of space that the government is required to provide the contractor).

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
TSC Director	11.15	120	One if TSC Director FTE projected.
Secretary's Office	11.15	120	One if FTE projected.
Workstation cubicle	5.57	60	Minimum. 60 nsf per FTE projected.
Storage Room (Forms, Literature)	5.57	60	One per TSC Office.
Office Automation Room	11.15	120	One per TSC Office. May be shared with Military TRICARE.
TSC Waiting Area	5.57	60	Minimum, plus 30 nsf for each two (2) TSC Service Consultant FTE in excess of four (4)
TSC Receptionist	7.43	80	Combine with waiting area.

DoD Space Planning Criteria for Health Facilities

Medical Administration

2.5.5.3. Military TRICARE (in freestanding Clinics, Hospitals, and Medical Centers)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
TRICARE Chief's Office	11.15	120	One if TRICARE Chief FTE projected
NCOIC/LCPO/LPO's Office	11.15	120	One if FTE projected.
Secretary's Office	11.15	120	One if FTE projected.
Workstation cubicle	5.57	60	Minimum. 60 nsf per FTE projected.
Storage Room (Forms, Literature)	5.57	60	One per TRICARE Office.
Office Automation Room	11.15	120	One per TRICARE Office. May be shared with TRICARE Service Center.
TRICARE Consultant(s) Office	11.15	120	Per TRICARE Service Consultant FTE projected (Examples - Benefits Advisors, Nurse Managers, Utilization Mgmt.)
TRICARE Waiting Area	5.57	60	Minimum, plus 30 nsf for each two (2) TRICARE Service Consultant FTE in excess of four (4)
TRICARE Receptionist	7.43	80	Combine with waiting area.

2.5.5.4 Inpatient Records (in hospitals and Medical Center and clinics with ambulatory surgery service)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Inpatient Records Files Room	18.58	200	Minimum. See formula below in para. 2.5.5.7
Ambulatory Surgery Records		varies	100 nsf minimum. Ambulatory surgery records are called "Extended Ambulatory Records" but are treated the same as inpatient records and stored with inpatient records in a hospital or medical center. In a freestanding clinic with ambulatory surgery service, these record are managed and stored the same as inpatient records. See formula in para. 2.5.5.7. for inpatient records
Records Work Area and Air Evacuation Work Area	18.58	200	One per records room. Includes copy machine.
Admission and Discharge (A&D) Booths	5.57	60	One "privacy booth" per A&D Clerk FTE projected.
Patient Records Clerk(s)		varies	60 nsf / patient records clerk FTE projected
Transcription Room		varies	60 nsf per transcription clerk FTE projected
Physicians' Work Room	11.15	120	Minimum, plus 60 nsf for each increment of 50 physicians in excess of 25.

DoD Space Planning Criteria for Health Facilities

Medical Administration

2.5.5.5. Outpatient Records (in any Medical Treatment Facility).

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Records Window	5.57	60	One per outpatient records area for the dispensing/collection of records. Area may be distributed inside and outside of the records area window. This space can be decentralized to the Primary Care Clinic.
NCOIC/LCPO/LPO Outpatient Records	11.15	120	If FTE projected. This space can be decentralized to the Primary Care Clinic.
Medical Records Clerks		varies	40 nsf per clerk during peak staffing shift. Comment - This accounts for large facilities that run several shifts in this area. This space can be decentralized to the Primary Care Clinic.
Personnel Reliability Program (PRP) Office	11.15	120	One per PRP FTE. This space can be decentralized to the Primary Care Clinic.
Outpatient Records Storage Area		varies	See formula in para. 2.5.5.7. This space can be decentralized to the Primary Care Clinic.

2.5.5.6. Central Appointments Office. (In any Medical Treatment Facility with a Central Appointment staff).

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Chief of Central Appointments	11.15	120	If FTE projected
Central Appointment Clerk Workstations		varies	60 nsf per clerk during peak staffing shift. Comment - This accounts for large facilities that run more than one appointment shift.
Central Appointments Lounge	9.29	100	Only for areas with 8 or more clerks. 100 nsf minimum. Add 10 nsf for each five clerks over 10.

DoD Space Planning Criteria for Health Facilities

Medical Administration

2.5.5.7. Formulas.

Formulas for Patient Records Storage Areas:

Formulas for Inpatient Records and Extended Ambulatory Records Storage Areas:

Inpatient/EAR Records: $NSF = (\text{annual admissions}) \times (\text{maximum year records are retained factor}) \times (\text{inches of records per admission}) \times (0.055 NSF)$

Note: Because measurement of these records is based on an actual measurement of records on hand, there is not a requirement to calculate MEDICARE eligible records separately.

STEPS:

1. Project the number of admissions and ambulatory surgery procedures in medical facility annually.
2. Determine the number of years this facility will retain active records and apply the appropriate factor:
 factor = 3, if not required to maintain records for two years.
 factor = 6, if required to maintain records for five years.
 NOTE: As a rule medical centers retain records for five years and other hospitals retain records for two years.
3. Calculate the inches of record per admission, often a fraction of an inch. Count the number of inpatient records in a typical sample of 50 inches of records (4 foot - 2 inches) of records. This is a measure of the thickness of the records. The fifty inches of records would be 50 inches if staked on top of each other. Divide 50 inches by the number of records in the stack 50 inches high - i.e. you will arrive at average thickness of a record (inches per record).
4. 0.055 is a conversion factor (square foot per inch), which converts inches of records into square feet of floor space needed to store the records in shelving that is 3 feet wide and 6 shelf units high and includes the aisle space to file and retrieve records.
5. Insert the appropriate numbers and factors in the formula and calculate the required net square feet (nsf).

Note: Inactive records are sent to the National Treatment Records Center.

DoD Space Planning Criteria for Health Facilities

Medical Administration

Formula for Outpatient Records Storage Areas:

Outpatient Records Room: $NSF = (\text{projected number of records}) / (\text{linear feet conversion factor}) \times (0.06 \text{ square feet per linear feet, shelf factor})$

NOTE: This formula must be calculated separately for MEDICARE eligible patients and for non-MEDICARE eligible patients using a different linear feet conversion factor and different projected numbers of records.

STEPS:

1. From the beneficiary population to be served, project the number of non-MEDICARE eligible patient records that require file space.
2. Use a linear feet conversion factor of 16 records per linear foot for non-MEDICARE patients.
3. Insert the appropriate numbers and calculate the formulas.
4. If the MTF is providing care to MEDICARE eligible patients, then also calculate additional space using the same formula as follows.
5. From the beneficiary population to be served, project the number of MEDICARE eligible patient records that require file space.
6. Use a linear feet conversion factor of 8 records per linear foot.
7. Insert the appropriate numbers and calculate the formulas.
8. Combine the NSF of space required for MEDICARE and non-MEDICARE eligible patients to obtain the total outpatient files storage area required.

Note Concerning all records storage areas: If a high density file storage system (space saver) is planned, the net square footage may be reduced by 44.8%.

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

3.1.1. PURPOSE AND SCOPE:

This section sets forth space planning criteria for the Primary Care / Family Practice Clinical Services in military health care facilities. Primary care clinics include: family practice clinics, general outpatient clinics, pediatric clinics, physical examination sections, adolescent clinics and well baby clinics. This section provides criteria for the family practice clinics, general outpatient clinics and physical examination sections. A separate section (see section 3.3) provides criteria for pediatrics, adolescent and well baby clinics.

3.1.2. DEFINITIONS:

Clinic Visit: A visit is a contact between an eligible beneficiary and a medical care provider. A visit consists of either examination, diagnosis, treatment, evaluation, consultation, counseling, or medical advice in a clinic or treatment/observation in quarters. (Source: DoD 6015-M, Glossary of Healthcare Terminology 1999)

Family Practice: A specifically trained and certified specialty of medicine, which provides healthcare to all members of a family unit. In addition to providing general medical care, family practitioner may provide obstetrics care, pediatrics, minor surgical, psychiatric and geriatrics care.

Family Practice Residency Program Center: The primary setting for a residency program for training in the knowledge, skills, and attitudes of family practice is a family practice center. At such a location, each resident must provide continuing, comprehensive care to a panel of patient families.

Primary Care Clinic: A primary care clinic may be referred by various names (troop medical clinic, adult clinic, family practice clinic, adolescent clinic, pediatric clinic and others). A primary care clinic provides the office, examination and treatment space for "primary care managers" in the military healthcare system.

Primary Care Manager (PCM): A primary care manager is a medical provider, such as a primary care physician, family physician, family nurse practitioner, internist or pediatrician, who provides primary care and family medicine services to empanelled TRICARE patients, and who supervises the patients' overall health and wellness.

Primary Care Physician: Generally applies to pediatricians, family physicians and general practitioners and occasionally includes obstetrician/gynecologists and internists. (Source: DoD 6015-M, Glossary of Healthcare Terminology, 1999)

Provider: An individual, who examines, diagnoses, treats, prescribes medication and manages the care of patients within their scope of practice as established by the governing body of a healthcare organization. General providers are physicians, physician's assistants and clinical nurse practitioners.

3.1.3. POLICIES:

Primary Care Provider Team Size: The size of a primary care provider team is not dictated by this criteria. For the purposes of programming space, provider teams will be eight providers each. The number of teams is established as the total number of providers divided by eight (8) and rounded up to the next higher number when the remainder is 4 or more.

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

Providers' Examination Rooms: Each provider will be provided with two examination rooms.

Providers' Offices: Each physician, physician's assistant, clinical nurse practitioner, and allied scientist on the staff will be provided a private office (excluded offices are provided under other criteria, such as Radiologists, Pathologists, Anesthesiologists, Commanders, etc.).

Physical Examination: A separate physical examination section will be provided when workload exceeds an average of 100-150 exams per week (20/day). Do not include Family Practice, pediatric or adolescent medicine physical examination when determining the need of a physical examination section.

Team Sizing Criteria: The size of a provider team may vary. See additional information provided in "Section 3.2 – Clinic of the Future" and "Section 3.3

3.1.4. PROGRAM DATA REQUIRED:

Is this a Free Standing Clinic or is it a clinic within a hospital or medical center?
 Is this the center for a Family Practice Residency Program?
 Number of primary care providers programmed.
 If a freestanding clinic, is there a radiology technician (FTE) assigned?
 If a freestanding clinic, how many medical records technician (FTEs)?
 If a freestanding clinic, how many appointment clerks assigned?
 If a freestanding clinic, how many personnel (FTEs) are projected to staff the immunization room (give injections)?
 Projected number of immunizations per year.
 Will immunizations be sent to another clinic, i.e. a hospital immunization clinic?
 Will ECGs be done in this clinic?
 Projected ECG tests per year.
 Is an audiologist or an audiology tech. assigned to this clinic?
 Is a mental health provider assigned to this clinic?
 Will proctoscopic procedures be done in this clinic?
 Will an optometry technician be assigned to this clinic?
 What is the number of physical examinations accomplished per week?
 Maximum number of FTE residents seeing patients in the clinic at one time?
 Is a Social Worker assigned to this clinic?
 Is there a Residency Research Technician assigned?

3.1.5. SPACE CRITERIA:

Primary Care Clinic Space Requirements: The following lists indicate functions that are normally required, the basis for planning and the planning range for freestanding clinics and clinics in DoD hospitals and medical centers. Taken with other portions of the DoD Space Planning Criteria, this section also provides the basis for freestanding clinics.

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration (Section 2.1).

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

Provider Teams: Many military Primary Care Clinics use the concept of “Provider Teams” to enhance continuity of care to an identified patient population (empanelled). Such teams are most effective when they are associated with a defined area of the clinic. When teams are used, there may be an increased need for such areas as Weights and Measures or Team Reception Stations. The use of Primary Care Provider Teams must be stated to include the size of the team.

Ambulance Dispatch Area: The criteria for ambulance dispatch and on-call rooms is provided in a separate section, Section 3.5, Emergency Services. If no emergency services department exists, then provisions for this space may need to be located in the Primary Care/ Family Practice area.

Physical Examination: In computing workstations, any fraction of 0.4 or over may be converted to the next higher number. A minimum of one of each workstation is required unless otherwise noted.

Functions Unique to a Freestanding Primary Care Clinic (not within a hospital or Medical Center):

Note: Program this area for a freestanding clinic in addition to the areas found in the section titled, Functions Common to both a Freestanding Primary Care Clinic and a Primary Care Clinic Found in a Hospital or Medical Center.

There are two general types of freestanding clinics. There are clinics, which are located on the same installation as a hospital or medical center. This happens more typically in the Army and Navy. There may be more than one such clinic on a military installation with a large beneficiary population (Fort Bragg, Fort Hood, Camp Pendleton). The other type of freestanding clinic occurs as the sole source of medical care on the installation, i.e. there is no hospital or medical center. The concept of operation for each of these clinics must be carefully considered. Where a clinic exists on an installation with a hospital or medical center, some services may not be programmed into the clinic because patients are referred to the hospital or medical center for diagnostic care (lab work, radiology, pharmacy, etc.)

Functions Unique to a Free Standing Primary Care Clinic:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS			
Clinic Entrance	4.65	50	100 nsf of exterior covered space at the clinic main entrance, calculated as “half space”
Central Clinic Lobby	18.58	200	One per freestanding clinic
Clinic Information Desk	5.57	60	One per clinic with more than 15 providers FTEs.
Radiology Area	33.44	360	When radiology tech. assigned. See also Section 5.4.
Clinic Pharmacy	22.30	240	When Pharmacist assigned, See also Section 5.6.
Advise Nurse(s) Area	9.29	100	Minimum. When one nurse FTE, add 60 nsf per additional FTE projected.
Patient Resource Center			May be provided: see Section 2.2.

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

Functions Unique to a Free Standing Primary Care Clinic (Continued):

PATIENT AREAS			
Patient Records Area		varies	When patient records tech. assigned, See section 2.5.
Appointments Clerks Area	9.29	100	100 nsf minimum. Add 80 nsf per clerk FTE above one.
Appointment Clerk Lounge	9.29	100	Only for areas with 8 or more clerks. 100 nsf minimum. Add 10 nsf for each five clerks over 10. 180 nsf maximum.

Functions Common to Both Free Standing Primary Care Clinics and Hospital/Medical Center Primary Care Clinics:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
PATIENT AREAS			
Central Waiting Area		varies	Provide 3.0 seats per provider. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting). Note: this space can be divided into separate sick and well waiting areas.
Reception/Control	13.01	140	140 nsf per provider team when consolidated reception or one at 140 nsf per every 8 providers. Includes space for 2 technicians. When only 1 technician required, consolidate with adjacent department, where possible.
Screening, Weights and Measures, Adult Room	7.43	80	One per each 4 providers.
Screening, Weights and Measures, Pediatrics Room	11.15	120	One per each 8 providers, for pediatric services provided.
Provider's Exam Rooms	11.15	120	Two per provider (FTE) programmed.
Isolation Exam Room	13.01	140	One per clinic.
Dedicated Isolation Toilet	5.57	60	Single occupancy toilet with diaper changing counter.
Patient Toilets		varies	See Section 6.1

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

Functions Common to Both Free Standing Primary Care Clinics and Hospital/Medical Center Primary Care Clinics (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
STAFF AND SUPPORT AREAS			
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Provider's Office	11.15	120	One per provider (FTE) programmed.
Nurse Manager's Office	11.15	120	One per provider team.
Nurses' Workroom	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the clinic.
NCOIC/LCPO/LPO Office	11.15	120	One per provider team.
Education Nurse	11.15	120	One per FTE provided.
Clean Utility Room	11.15	120	For up to 15 exam/treatment rooms
	13.94	150	If 16-30 exam/treatment rooms
	16.72	180	If >30 treatment rooms
Soiled Utility	8.36	90	For up to 15 exam/treatment rooms.
	11.15	120	If 16-30 exam/treatment rooms
	13.94	150	If > 30 treatment rooms
Scope Wash Room	11.15	120	One per clinic.
Equipment Storage	9.29	100	1 per clinic.
Team Conference Room(s)	23.22	250	Minimum. One per provider team or every 8 provider FTE's. A provider team is 6 to 8
Litter/Wheelchair Storage	5.57	60	One per clinic.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Janitor's Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.
TREATMENT AREAS			
Treatment Room –general purpose	16.26	175	One per 6 providers.
Holding Room	16.26	175	One per clinic. Provide for small clinics with less than 12 providers
Treatment Room – two station	31.59	340	One per clinic. Provide for large clinics with over 12 or more providers. Includes space for two 120 nsf cubicles, plus a sink/work area. Note: clinics have the option of providing two 175 nsf one-station treatment rooms instead of one 340 nsf two- station treatment room.

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

Functions, which require special considerations based on the concept of operation, the availability of staffing and the availability of these services, close by:

Note: Immunization area may not be required if there is a separate immunization service in a hospital or medical center.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS

Immunization Waiting Area		varies	16 nsf per space; 12 spaces per injection station, 5% of seating must be handicapped at 25 nsf per handicapped seat.
Immunization Room (see formula at the end of this section)		varies	One per primary care clinic when the primary care clinic is located in a medical treatment facility that has no Allergy/Immunization Clinic (Section 3.22) and this is the location where patients receive their immunizations.
Immunization Holding Area	9.29	100	One per immunization room.
Immunization/Allergen Room	11.15	120	One per primary care immunization/allergen service when a technician is assigned (FTE).
Audiobooth Room (also see section 3.10)			Dependent on availability of staffing.
One Person Audio Screening Booth	11.15	120	1 person, double wall booth, when no audiologist assigned. One per clinic when no audiology service available in same building.
Audio Booth Suite	34.84	375	An audiobooth suite is a two room, double wall booth. One per clinic when an audiology technician assigned and there is no other audiology service in the same building as the primary care clinic.
Optometric room	11.15	120	1 per clinic, if Optometry Specialty Clinic not programmed & Optometry Tech assigned.
Specimen Toilet	5.57	60	One per clinic with a laboratory. See Section 6.1.
Blood Drawing Area	11.15	120	One per clinic with authorized lab FTE.

STAFF AND SUPPORT AREAS

Orthopedic Appliance Modification, Preparation and Cast room	13.01	140	1 per clinic if Orthopedic Specialty clinic not programmed and orthopedic tech. assigned.
Laboratory (Mini. Lab.)	5.57	60	60 nsf minimum. One per clinic if satellite lab is approved in clinic concept of operations, or when laboratory staff FTE exist. 200 nsf maximum. Refer to Section 5.5 for main lab requirements.

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
TREATMENT AREAS			
Proctoscopic room	13.94	150	1 per clinic if medical or surgical specialty clinic not programmed.
Dedicated Toilet	5.57	60	1 per proctoscopic room.
ECG room	9.29	100	1 per clinic if medical specialty clinic not programmed.
Dedicated Dressing Cubicle	4.88	52	1 per ECG Room.

Functions which are required for Residency Education in Family Practice:

The following areas must be programmed if the MTF is the “Center” for a Family Practice Residency Program. These areas are in addition to those listed under common areas above.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
STAFF AND SUPPORT AREAS			
Director of Family Practice Residency	11.15	120	One per director of a Family Practice Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of a Family Practice Residency Program, if there is a projected FTE secretary position.
Family Practice Coordinator	11.15	120	One per Family Practice Program Coordinator if there is a projected FTE.
Family Practice Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
Family Practice Resident’s Office Space	11.15	120	Minimum. 60 nsf per projected resident.
Family Practice Outpatient Records Room		varies	Provide space using the formula for outpatient records in Section 2.5. Decrease central outpatient records space by the amount programmed for Family Practice
Family Practice Office Library	22.29	240	One per Family Practice Residency Program.
Family Practice Laboratory		varies	Provide space based on Section 5.5.
Conference Room	37.16	400	One per Family Practice Residency Program.
Monitored Exam Rooms - subject & observer rooms.	11.15	120	This suite requires justification. Added upon request but not required.
	5.57	60	May use videotaped monitoring cameras instead of a mirror room.
Small Group Counseling Rooms	11.15	120	One per eight family practitioners and residents.

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

Physical Examination Section with more than 20 examinations per day:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
PATIENT AREAS			
Waiting & Form Writing	7.43	80	80 nsf min., 16 per space. Number of spaces = phys exams per day / 2 (groups per day)
History Station	4.65	50	Per station, 1 station per 40 exams per day
Height & Weight	4.65	50	50 per station, 1 station per 100 exams per day.
Blood Pressure and Pulse Station	4.65	50	Per station, 1 station per 100 exams per day.
ECG Station	8.36	90	Per station, 1 station per 80 exams per day.
Specimen Toilet (wc, lav)	4.65	60	Single occupancy.
Urine Specimen Collection	6.50	70	1 per clinic.
Vision Testing (Screening only)	6.50	70	per station, 1 station per 60 exams per day
Optometric Eye Lane	13.00	140	1 per clinic if Optometric Clinic not programmed & no eyelane provided in Family Practice Clinic.
Audiobooth	10.22	110	1 man double wall booth (minimum requirement of physical examination service).
	19.51	210	4 man double wall booth if less than 48 hearing test per day and audiology technician assigned.
	24.16	260	6 man, double wall booth, if more than 48 hearing tests per day and an audiology technician is assigned.
Dental Check	8.36	90	Per station, 1 if number of physical exams per day exceeds 100 per day.
X-Ray Station	16.72	180	If number of physical exams per day exceeds 150 per day.
Radiology Viewing Room	8.36	90	1 per clinic when X-ray station is programmed.
ENT Exam Station	9.29	100	1 per clinic if ENT Specialty Clinic not programmed.
Waiting Between Stations & Int. Cir.	1.86	20	Minimum. 5% of Amt. of space required for stations.

DoD Space Planning Criteria for Health Facilities

Primary Care / Family Practice

Physical Examination Clinic with under 20 exams per day:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS			
Waiting & Form Writing (w/alcove)	13.01	140	1 per clinic
Reception Desk	9.29	100	1 per clinic.
Specimen Toilet	4.65	50	Minimum; single occupancy.
ECG with dressing booth	11.15	120	1 per clinic.
Weights & Measures	6.50	70	1 per clinic.
Blood Collection	4.65	50	1 per clinic.
Waiting between Stations & Int. Circulation	1.49	16	Per seat. Seats = $\frac{\text{avg. clinic visits per day} \times 0.02}{7 \text{ hours per day}}$

Formula for Immunization Room:

Given: One immunization (injection) station is 215 nsf (18' x 12').
Step One: Determine the projected number of immunizations to be given weekly.
 (Immun. per week)
Step Two: Determine the hours of operation per week for the immunization service.
 (svc. hours per week)
Step Three: It is assumed that one staffed immunization station can administer 12 injections per hour. Determine the number of FTEs assigned to administer injections.
Step Four: Apply numbers to formula.

$$\text{Injection Stations} = (\text{immun./week}) / (12 \text{ immun./hour}) \times (\text{scv hours/week})$$

$$\text{Total NSF} = \text{Injection Stations} \times 215 \text{ nsf/station}$$

DoD Space Planning Criteria for Health Facilities

Pediatrics

3.3.1. PURPOSE AND SCOPE:

This chapter specifies the space planning criteria for outpatient pediatric services. These services include preventive, diagnostic and curative healthcare provided to children (under the age of 18 years). These services may be further subdivided into pediatric, well baby and adolescent services.

3.3.2. DEFINITIONS:

Adolescent: An adolescent is a teenager: a child between the ages of 13 to 18 years of age.

Clinic Visit: A visit is a contact between an eligible beneficiary and a medical care provider. A visit consists of either examination, diagnosis, treatment, evaluation, consultation, counseling, or medical advice in a clinic, or treatment/observation in quarters. (Source: DoD 6015-M, Glossary of Healthcare Terminology 1999)

Patient Learning Resource Room: A patient learning resource room provides patients with publications and access to computers connected to the internet to research diseases and health information.

Pediatric Health Services: Pediatrics is a branch of medicine dealing with the development, care and diseases of children.

Primary Care Clinic: A primary care clinic may be referred by various names (troop medical clinic, adult clinic, family practice clinic, adolescent clinic, pediatric clinic and well baby clinic). A primary clinic provides the office space for “primary care managers” in the military healthcare system.

Primary Care Physician: Generally applies to pediatricians, family physicians and general practitioners and occasionally includes obstetrician/gynecologists and internists (Source: DoD 6015-M, Glossary of Healthcare Terminology, 1999).

Provider: An individual, who examines, diagnoses, treats, prescribes medication and manages the care of patients within their scope of practice as established by the governing body of a healthcare organization. Providers are physicians, physician's assistants and clinical nurse practitioners.

Rotating Resident: A rotating resident is one from any graduate medical education (GME) specialty program (internal medicine, pediatrics, surgery, family practice, etc.) who, in the course of his or her education, must spend time in the services of another specialty. For example, internal medicine residents are required to “do a rotation” in the OB/GYN service.

Well Baby: Well baby is a term used to designate an infant who receives routine healthcare examinations to determine if the infant is developing normally. Well baby visits may also include those visits made for routine immunizations.

3.3.3. POLICIES:

Adolescent: A separate adolescent clinic will be programmed when justified by work load. (2 Adolescent Medicine providers.

Pediatric Clinic: A pediatric clinic may be provided when there are a minimum of two pediatricians assigned.

DoD Space Planning Criteria for Health Facilities

Pediatrics

Providers' Examination Rooms: Each provider will be provided with two examination rooms.

Providers' Offices: Each physician, physician's assistant, clinical nurse practitioner, and allied scientist on the staff, who have patient appointments, will be provided a private office (excluded offices are provided under other criteria, such as Radiologists, Pathologists, Anesthesiologists and Commanders).

Residents' Office Space: Private office space will not be programmed for graduate medical education residents. Residents who are in a graduate medical education programs studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

Resident's Office/Examination Rooms: Additional office and examination room space may be programmed into a clinic to provide space for "rotating residents" to see patients. A resident during his or her rotation in the clinic will use this space when they are see patients as walk-ins or on appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients. Note: these resident are not necessarily pediatric residents, family practice, internist and others residency programs may require a rotation in the pediatric clinic.

3.3.4. PROGRAM DATA REQUIRED:

Are there two or more providers (FTEs) for an adolescent clinic?
Will there be a separate adolescent clinic?
Number of providers programmed (pediatrics, adolescent)
Projected pediatric population (pediatric total, infant and adolescent)
Projected clinic visits per year (pediatric, adolescent).
Projected number of immunizations per year.
Number of nurses (FTEs) projected?
Number of child psychologist projected?
Number of social workers projected?
Is there a pediatric residency program?
Number of pediatric resident projected?
Maximum number of FTE residents (all types) seeing patients in the clinic at one time?
What are the maximum number of providers performing well-baby service at any given time?
Is there a Residency Research Technician?

DoD Space Planning Criteria for Health Facilities

Pediatrics

3.3.5. SPACE CRITERIA:

Note to Programmer: The concept of operation is important to programming. It may be more practical, due to resource constraints in a small facility, to program only a pediatric clinic without a separate well baby or adolescent clinics. In a smaller facility, the well baby and adolescent clinic requirements may be met by using the same providers and scheduling these clinics at different times. Bear in mind that while scheduling can be an effective use of resources, there will always be a requirement for access to care for ill pediatric patients. In a single pediatric facility (i.e. one facility which provides well baby and/or adolescent services in the same facility via scheduling) there must be facilities to separate potentially infectious patients from the well baby patients.

If the concept of operation is to have separate clinics (sick versus well), then each clinic should be studied very carefully to maximize the sharing of resources and minimize the duplication of functions.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS			
Clinic Waiting/Play Area (Pediatric/Well Baby/Adolescent)		varies	Provide 5.0 seats per each provider FTE. <u>Main waiting</u> : Recommend providing 67% of space for a main waiting area. <u>Well waiting</u> : : Recommend providing 33% of space for a well waiting area. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting). If programming does not allow for separate services (well waiting vs. main waiting), then combine providers and waiting space appropriately.
Clinic Reception Station /Control Counter	13.01	140	140 nsf per provider team when consolidated reception, or one at 140 nsf per every 8 providers. Includes space for 2 technicians. When only 1 technician required, consolidate with adjacent department, where possible.
Infant Feeding Room	5.57	60	Minimum. One room per waiting area. Add 40 additional square feet for each ten waiting chairs in excess of 20.
Toy Storage Area	5.57	60	One per clinic.
Pediatric Play Room	11.15	120	One per clinic.
Screening/Weights and Measures Room	18.58	200	One per each 4 providers assigned.
Vision and Hearing Screening Room	11.15	120	One per clinic.

DoD Space Planning Criteria Pediatric

FUNCTION	AUTHORIZED	
	m ²	nsf
Provider's Exam Rooms	11.15	120
Isolation Exam Room	13.01	140
Isolation Toilet	5.57	60
Well Waiting - Immunization	11.15	120
Pediatric Immunization Waiting	11.15	120
Pediatric Immunization Room	11.15	120
Immunization Holding Area	18.58	200
Patient Learning Resource Room	11.15	120
Patient Toilets		varies
STAFF AND SUPPORT AREAS		
Administrative Office		varies
Provider's Office	11.15	120
Social Worker's Office	11.15	120
Nurse Manager's Office	11.15	120
Nurses' Work Room	11.15	120
NCOIC/LCPO/LPO Office	11.15	120
Clean Utility Room	11.15	120
	13.94	150
	16.72	180
Soiled Utility	8.36	90
	11.15	120
	13.94	150
Equipment Storage	9.29	100
Team Conference Room(s)	23.25	250
Conference Room	37.16	400
Staff Lounge		varies
Staff Lockers		varies
Staff Toilets		varies
Janitor's Closet	5.57	60
Litter/Wheelchair Storage	5.57	60

DoD Space Planning Criteria for Health Facilities

Pediatrics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>TREATMENT</u>			
Treatment Room	16.26	175	One per 6 providers, minimum one per clinic.
Treatment Room - two station	31.59	340	One per clinic. Provide for large clinics with over 12 or more providers. Includes space for two 120 nsf cubicles, plus a sink/work area. Note: clinics have the option of providing two 175 nsf one-station treatment rooms instead of one 340 nsf two- station treatment room.
Digital Radiology Viewing and Automation Equipment Room	8.36	90	Special Justification required. 1 per clinic when radiology station is programmed.

Functions which are required for Residency Education in Pediatrics:

The following areas must be programmed if the MTF provides a Pediatrics Residency Program.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of Pediatrics Residency	14.86	160	One per director of a Pediatrics Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of a Pediatrics Residency Program, if there is a projected FTE secretary position.
Pediatric Residency Coordinator	11.15	120	One per Pediatric Residency Program Coordinator, if there is a projected FTE.
Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
Residents' Office Space	11.15	120	Minimum. 60 nsf per projected resident.
Pediatric Residency Office Library	22.29	240	One per Pediatric Residency Program.
Pediatric Residency Laboratory	11.15	120	One per clinic with authorized lab FTE.
Conference Room	37.16	400	One per Pediatrics Residency Program.
Rotating Resident's Office	11.15	120	One office for each of the maximum number of residents (all types) at any one time, who see patients in the clinic.
Rotating Resident's Examination Room	11.15	120	Two examination rooms for each of the maximum number of residents (all types) at any one time, who see patients in the clinic.
Small Group Counseling Rooms	11.15	120	One per eight Pediatricians and residents.

DoD Space Planning Criteria for Health Facilities

Women's Health

3.6.1 PURPOSE AND SCOPE:

This chapter specifies the space planning criteria for outpatient women's health services. These services include OB/GYN Clinic, Midwife Clinic, Family Planning and Women's Health Service, which may be provided in either this section and/or in other sections of this criteria. Examples of such services include: oncology, surgical services, counseling and women's imaging services with such procedures as ultrasound, mammography and bone densitometer.

Note to the Programmer. Decisions on a "clinic concept of operation" are especially important. There is a considerable range of services, which can be included under the title of "women's health." One option is to program a clinic, which provides obstetrics and gynecological services. This clinic could refer women elsewhere for such things as laboratory work, imaging, counseling and etc. Another option is to program a clinic, which provides a "one stop" location for all women's health services. Such an all-inclusive option would result in the programming of laboratory services, radiology/imaging services and counseling services in the women's health clinic. This option may also cross-traditional organizational lines, and personnel command chains of departments (OB/GYN, Surgery, Nursing, and Social Work Services). Care must be taken to avoid duplicate programming of equipment based on the same workload count - for example mammography units in both the clinic and the radiology department. Special attention should also be given to assuring that the resources (to include staffing) necessary to provide all services programmed are available, and fully supported by the command.

3.6.2. DEFINITIONS:

Clinic Visit: A visit is a contact between an eligible beneficiary and a medical care provider. A visit consists of either examination, diagnosis, treatment, evaluation, consultation, counseling, or medical advice in a clinic, or treatment/observation in quarters. (Source: DoD 6015-M, Glossary of Healthcare Terminology 1999).

Patient Learning Resource Room: A patient learning resource room provides patients with publications and access to computers connected to the Internet to research diseases and health information.

Provider: An individual, who examines, diagnoses, treats, prescribes medication and manages the care of patients within their scope of practice as established by the governing body of a healthcare organization. Providers are physicians, physician's assistants, midwives and clinical nurse practitioners.

Rotating Resident: A rotating resident is one from any graduate medical education specialty program (internal medicine, pediatrics, surgery, family practice, etc.) who, in the course of his or her education, must spend time in the services of another specialty. For example, internal medicine residents are required to "do a rotation" in the OB/GYN service.

Women's Health Services: The concept of Women's Health Services includes two major elements. The first element provides for the outpatient services associated with preventive and curative medical care provided to women patients. This information is located in this section. The second element provides the inpatient services for women, to include the obstetric services and related birth services for newborns. This information is located in Section 4.2 and 4.3.

Women's Health Clinic: A clinic for women's health may include the following services: obstetrics, gynecology, breast examination/treatment, cervical cancer diagnosis/treatment and family planning. A clinic will normally include the following areas: waiting, reception, offices, examination rooms, special purpose rooms, imaging rooms, utility rooms, treatment rooms, storage space, linen rooms, conference rooms, lounges, and toilets.

DoD Space Planning Criteria for Health Facilities

Women's Health

3.6.3. POLICIES:

Providers' Examination Rooms: Each provider will be provided with two examination rooms.

Providers' Offices: Each physician, physician's assistant, clinical nurse practitioner, midwife and allied scientist on the staff who have patient appointments, will be provided a private office (excluded offices are provided under other criteria, such as Radiologists, Pathologists, Anesthesiologists and Commanders).

Resident's Office Space: Private office space will not be programmed for graduate medical education residents. Residents who are in a graduate medical education program studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

Resident's Office/Examination Rooms: Additional office and examination room space may be programmed into a clinic to provide space for "rotating residents" to see patients. A resident during his or her rotation in the clinic will use this space when they see patients as walk-ins or on appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients. Note: these resident are not necessarily OB/GYN residents only, family practice, internist and others residency programs may require a rotation in the women's health clinic.

3.6.4. PROGRAM DATA REQUIRED:

Female population projections by beneficiary and age groups.
Projected clinic visits per year.
Distribution of clinic visits by clinic or service and beneficiary category.
Number of providers programmed.
Number of provider teams projected.
Projected number of births annually.
Distribution of practitioners by specialty and/or service.
Distribution of technicians by specialty or service.
Projected number of mammograms per year.
Projected number of immunizations per year.
Projected number of bone densitometer exams per year
Projected number of ultra sound examinations per year
Projected number of colposcopy examinations per year
Projected number of physical examinations per year.
Basis of projections.
Data used for individual studies of specific functions.
Projected number of OB/GYN residents.
Projected maximum number of rotating residents seeing patients in the clinic at one time.
Is there a qualified operator/technician assigned to the clinic for the following: a. Laboratory, b. Bone Densitometer, c. Fluoroscopy, d. Colposcopy, e. Ultrasound f. Stress Test and Fetal Monitoring, g. Mammography
Is there a Social Worker FTE assigned to this clinic?
Is there an OB/GYN graduate medical education (GME) program?
Are there residents from other GME programs who do rotations in this clinic?
Projected records = (eligible beneficiaries) x (1 + carry over)
Is there a Residency Research Technician?

DoD Space Planning Criteria for Health Facilities

Women's Health

3.6.5 SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
<u>PATIENT AREAS</u>			
Clinic Waiting Area		varies	Provide 4.0 seats for each provider FTE. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting).
Clinic Reception Station /Control Counter	13.01	140	140 nsf per provider team when consolidated reception or one at 140 nsf per every 8 providers. Includes space for 2 technicians. When only 1 technician required, consolidate with adjacent department, where possible.
Screening, Weights and Measures	11.15	120	One per each 10 providers assigned.
Provider’s Exam Rooms	11.15	120	Two per provider (FTE) programmed, also note resident examination rooms.
Patient Learning Resource Room	11.15	120	May be provided: see Section 2.2.
Group Therapy Room	18.58	200	One, when one or more social worker projected.
Patient Toilets		varies	See Section 6.1.
<u>STAFF & SUPPORT AREAS</u>			
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Provider's Office	11.15	120	One per provider (FTE) programmed, also note resident offices.
Nurse Manager’s Office	11.15	120	One per clinic.
Nurses’ Work Room	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the clinic.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic.
Social Worker’s Office	11.15	120	One per social worker FTE projected.
Literature/Forms & AV Storage	9.29	100	One per clinic.
Clean Utility Room	11.15	120	For up to 15 exam/treatment rooms.
	13.94	150	If 16-30 exam/treatment rooms.
	16.72	180	If >30 treatment rooms.
Soiled Utility	8.36	90	For up to 15 exam/treatment rooms.
	11.15	120	If 16-30 exam/treatment rooms
	13.94	150	If > 30 treatment rooms.
Literature/Forms & AV Storage	9.29	100	One per clinic.
Family Planning Counselor Office	13.01	140	One per family planning counselor FTE projected.
Equipment Storage	9.29	100	One per clinic.
Team Conference Room(s)	23.25	250	Minimum. One per provider team or every 8 provider FTE. A provider team is 6 to 8 provider FTE’s.
Staff Lounge and Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair Storage	5.57	60	One per clinic.
Janitor’s Closet	5.57	60	One janitor’s closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Women's Health

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
<u>TREATMENT AREAS</u>			
Specimen Collection Room	11.15	120	One per women’s clinic when no laboratory technician (FTE) projected.
Specimen Laboratory	18.58	200	One, if one or more laboratory technician (FTE) projected.
Specimen Toilet	5.57	60	One per clinic.
Bone Densitometer	11.15	120	One, if part of the concept of operation and if qualified operator projected.
Infertility Fluoroscopy Room	27.87	300	One, if part of the concept of operation and if qualified radiology technician (FTE) projected.
Fluoroscopy Toilet	5.57	60	One, if fluoroscopy room programmed.
Colposcopy Room	11.15	120	One if part of the concept of operation and if qualified technician (FTE) projected.
Ultrasound Room	11.15	165	One, if part of the concept of operation and if qualified radiology technician or qualified physician (FTE) projected.
Ultrasound Toilet	5.57	60	One if ultrasound programmed.
Non-Stress Test / Fetal Monitoring Room – single testing	11.15	120	One per clinic.
Non-Stress Test / Fetal Monitoring Suite	27.87	300	One, if part of concept of operation and if technician (FTE) qualified to administer testing is projected. Provide if more than 360 births per year projected. Includes 3 stations and one work station.
Mammography Room	11.15	120	One, if part of the concept of operation and if a qualified radiology technician (FTE) projected.
Mammography Daylight Processing Room	5.57	60	One per 1 to 5 mammography units programmed, additional processing room per every 5 additional mammography unit programmed. Use either daylight processing or film processing room, listed below, but not both.
Mammography Film Processing Room	10.22	110	One per 1 to 5 mammography units programmed, additional processing room per every 5 additional mammography unit programmed. Use either film processing room or daylight processing, listed above, but not both.

DoD Space Planning Criteria for Health Facilities

Women's Health

Functions, which are required for Residency Education in OB/GYN.

The following areas must be programmed if the MTF is the "Center" for an OB/GYN Residency Program.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of OB/GYN Residency	14.86	160	One per director of an OB/GYN Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of An OB/GYN Family Practice Residency Program, if there is a projected FTE secretary position.
OB/GYN Coordinator	11.15	120	One per Family Practice Program Coordinator if there is a projected FTE.
Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
OB/GYN Residents' Office	11.15	120	Minimum, 60 nsf per projected resident.
OB/GYN Residency Office Library	22.29	240	One per Family Practice Residency Program.
OB/GYN Residents' Laboratory		varies	Provide space based on Section 5.5.
Conference Room	37.16	400	One per OB/GYN Residency Program.
Small Group Counseling Rooms	11.15	120	One per eight obstetricians, gynecologist and residents.
Resident's Examination Room	11.15	120	Two examination rooms for each of the maximum number (at one time) of residents (all types) who see patients in the clinic.

DoD Space Planning Criteria for Health Facilities

Occupational Therapy Clinic

3.8.1. PURPOSE AND SCOPE:

This document sets forth the space planning criteria for occupational therapy services within the Department of Defense Health Care Facilities.

3.8.2. DEFINITIONS:

Occupational Therapy (O.T.): Is the use of purposeful activity with individuals who are limited due to physical injury or illness, psychosocial dysfunction, developmental or learning disabilities, poverty and cultural differences or the aging process in order to maximize independence, prevent disability and maintain health. The practice encompasses evaluation, treatment and consultation. Specific occupational therapy services include: diagnosis and treatment of upper extremity conditions (physician extender role); designing, fabricating or applying selected orthotic and prosthetic or selective adaptive equipment; using specifically designed crafts and exercises to enhance functional performance; administering and interpreting tests such as manual muscle and range of motion; teaching daily living skills; developing perceptual motor skills and sensory integrative functioning; developing play skills and prevocational and leisure capacities; health promotion and injury prevention education and treatment; and adapting environments for the physically and mentally challenged. These services are provided individually, in groups, or through social systems.

In addition to the above, service may include ergonomics/human factor consultation (work adjustment); work-site evaluation; development of avocational interests and leisure time skills; fabrication of orthotic and assistive devices; clinical education programs for therapist level and or assistant level students and research programs; evaluation and treatment for sensory integrative dysfunction. As appropriate, service may be extended beyond the occupational therapy module to provide home health visits and consultation services to community agencies supporting the military.

Service: A service in this context includes all functions and activities associated with accomplishing the Occupational Therapy mission. This service receives referrals from all medical specialties.

Treatment Area for O.T.: The major treatment area or patient care area is the general clinic area including daily life skills area, evaluation areas, and work adjustment/hardening equipment area. Space requirements for the above treatment areas are calculated on the basis of projected patient visits per month. When computing actual space requirements, the resulting figures should be rounded to a whole number.

Visit: Each time patients present themselves to the Occupational Therapy, it is counted as one visit. One visit may generate several treatments. Visits to any areas outside the clinic, such as nursing units and homes, are not to be counted for space allocation.

3.8.3. POLICIES:

A separate occupational therapy clinic will be provided when there are 3 or more occupational therapist and occupational therapist technician FTEs projected. If one or two occupational therapists are projected, recommend combining occupational therapy with the physical therapy clinic.

DoD Space Planning Criteria for Health Facilities

Occupational Therapy Clinic

3.8.4. PROGRAM DATA REQUIRED :

Projected number of occupational therapist FTEs.
 Projected number of occupational therapist technician FTEs.
 Is there a pediatric evaluation program?
 Is ergonomics training provided?
 Is there a neuro/rehab. training program?
 Is there a daily living program?

3.8.5. SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>PATIENT AREAS</u>			
Clinic Waiting Area	13.01	140	Minimum(provides 7 seats). Provide 2 seats per occupational therapist and OT technician FTE projected. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting).
Clinic Reception Station /Control Counter	13.01	140	One reception station per clinic.
Patient Toilets		varies	See Section 6.1.
<u>STAFF AND SUPPORT AREAS</u>			
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Occupational Therapist Office	11.15	120	One per occupational therapist (FTE) programmed.
Occupational Therapy Technicians Office	11.15	120	One office per every three or fraction of three technicians FTE projected. (Do not include the senior technician if he or she is the NCOIC/ LCPO or LPO).
NCOIC/LCPO/LPO Office	11.15	120	One per clinic.
Equipment Storage	18.58	200	1 per clinic, 200 nsf minimum, add 60 nsf for each occupational therapist FTE over six.
Conference Room	23.25	250	Minimum. One per clinic with between four to eight occupational therapist FTE’s. Combine with another clinic if fewer than four OT FTE’s.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair Storage	5.57	60	One per clinic.
Janitors’ Closet	5.57	60	One janitor’s closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities
Occupational Therapy Clinic

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
<u>TREATMENT AREAS</u>			
Clinic Treatment Area	11.15	120	120 nsf minimum. Provide 60 nsf per therapist, OT technician FTE projected.
Daily Living Skills Training Room	37.16	400	One per clinic.
Private Evaluation Area	11.15	120	One room per every three technicians projected. (Do not round up).
Ergonomic Laboratory	37.16	400	One per clinic when ergonomic O.T. services provided.
Splint Fabrication Room	18.58	200	One per clinic.
Neuro/Rehab Training	18.58	200	One per clinic when neuro/rehab training program offered.
Pediatric Evaluation and Rehabilitation	18.58	200	One per clinic when pediatric evaluation a service of the clinic.
Work Adjustment Hardening Equipment Area	37.16	400	One per clinic.

DoD Space Planning Criteria for Health Facilities

Physical Therapy

3.9.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for outpatient physical therapy services. The purpose of physical therapy is to provide evaluation, treatment and consultation, which maintains, restores or improves physical functions.

3.9.2. DEFINITIONS:

Exercise Station: Any combination of weight training devices, exercise devices, exercise table, parallel bars, mats, tilt table, isokentic machines and gait training area.

Pain Manager: Pain managers provide the skills to manage pain in an effective manner.

Physical Therapist: Physical therapist provides the examination, evaluation, diagnosis, and treatment of individuals with potential or actual functional impairment. Physical therapy provides therapeutic interventions for inpatients and outpatients whose ability to function is impaired by disease, injury, or other causes. Patients treated include, but are not limited to, those with pain, neuromuscular, musculoskeletal, cardiopulmonary, and integumentary conditions. Physical therapy includes the prevention of injury and impairment through the promotion and maintenance of fitness. The profession also actively engages in consultation, education, and research. Physical Therapists are credentialed to serve as physician extenders / primary care providers evaluating and managing neuromusculoskeletal disorders. Physical Therapists are providing ergonomic assessments, injury prevention studies and counseling, wellness/physical fitness counseling, and health promotion activities.

Physical Therapy Technician: This may be a military enlisted person, specifically trained to perform certain physical therapy treatments or this may be a civilian Physical Therapy Assistant (PTA). A civilian PTA is usually licensed by the state where the MTF is located and is a graduate of an accredited training program. Such programs are accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE).

Wall Storage: Wall storage in a physical therapy clinic, normally in the exercise and the cubicle area, is open storage for weights, components of the equipment crutches and other physical therapy devices. This open storage is made possible by wall mounted heavy-duty pegboards, dowels and shelf units.

3.9.3. POLICIES:

Where physical therapy is a service in a hospital, a physical therapy room will be programmed on the ward where orthopedic patients are located.

DoD Space Planning Criteria for Health Facilities

Physical Therapy

3.9.4. PROGRAM DATA REQUIRED:

Number of physical therapist projected.
 Number of physical therapy technicians or aides/assistants projected.
 Is Senior TRICARE Prime offered in this MTF?
 Is there a Physical Therapy education program in this clinic?
 Maximum number of physical therapy students present at one time.
 Is this a Medical Center?
 Is there a secretary for the chief of the clinic?
 Is there a Residency Research Technician?

3.9.5. SPACE CRITERIA:

Note to Programmer: Hydrotherapy is not being widely used in military hospitals and is not being taught in the “in hospital rotation” portion of the DoD Physical Therapy Master Degree program as of the year 2000. The new Brooke Army Medical Center has had all whirlpools removed from the PT clinic. facilities. Most PT training to include Masters and PhD. Programs is conducted at BAMC for all three services. Therefore,, the programming of hydrotherapy should be questioned in any new facilities.

Part Time Operation or Full-Time operation with staffing of no more that one provider or technician staffing only - this is a minimum size physical therapy clinic.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>PATIENT AREAS</u>			
Clinic Waiting Area	13.01	140	Minimum, provide 7 seats. Provide 5 @ 16 nsf and 2 @ 25 nsf for handicapped waiting.
Clinic Reception Station /Control Counter	11.15	120	One reception station per clinic.
Physical Therapist Exam	11.15	120	One per physical therapist (FTE) projected as full-time or part-time.
Patient Toilets		varies	See Section 6.1.
<u>STAFF AND SUPPORT AREAS</u>			
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Physical Therapist Office	11.15	120	One per physical therapist (FTE) projected as full-time or part-time.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic. This is an office for the senior physical therapy technician. If this clinic is only operated part-time and is staffed by a technician, then this is that part-time technician's office.

DoD Space Planning Criteria for Health Facilities

Physical Therapy

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

STAFF AND SUPPORT AREAS (CONTINUED)

Physical Therapy Technician's Office	11.15	120	One office per every three or fraction of three technician FTE's projected. (Do not include the senior technician who is the NCOIC/LCPO or LPO).
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair Space	1.86	20	One per clinic.
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.

TREATMENT AREAS

Treatment Cubicle	13.01	140	Per cubicle. Minimum of four (4) cubicles. Provide 1.5 cubicles per technician. This is a treatment area, which is defined by a front wall, and ceiling hung curtains. The curtain area is 96 nsf and the remainder of the area is for circulation and workstation at the front of the cubicle.
Exercise Area	18.58	200	Minimum. One per clinic. Allows space for 3 machines with circulation. Provide justification if greater area required.
Dressing Room	4.88	52	One per clinic.
Mat/Platform Area	20.44	220	One per clinic.
Wall Storage in Exercise Area	5.57	60	One per clinic.
Equipment Storage Room	18.58	200	One per clinic.
Supply Storage Room	18.58	200	One per clinic.
Linen Storage Alcove	5.57	60	One per clinic.

DoD Space Planning Criteria for Health Facilities

Physical Therapy

Space Planning Criteria for P.T. Therapy Services – with multiple qualified P.T. therapists:

<u>PATIENT AREAS</u>			
Clinic Waiting Area		varies	Provide 2 seats per PT and PT Technician. 90% of seats @ 16 nsf and 10% of seats @ 25 nsf for handicapped waiting.
Clinic Reception Station /Control Counter	11.15	120	One reception station per clinic.
Physical Therapist Exam	11.15	120	One per physical therapist (FTE) projected as full-time or part-time.
Patient Toilets		varies	See Section 6.1.
<u>STAFF AND SUPPORT AREAS</u>			
Physical Therapist Office	11.15	120	One per physical therapist (FTE) projected as full-time or part-time.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic. This is an office for the senior physical therapy technician.
Physical Therapy Technician's Office	11.15	120	One office per every three or fraction of three technician/assistant FTE projected. (Do not include the senior technician who is the NCOIC/ LCPO or LPO)
Conference Room	23.25	250	Minimum. One per clinic with between four to eight physician therapist FTE's. Combine with another clinic if fewer than four PT FTE's.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair Space	5.57	60	One per clinic.
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.
<u>TREATMENT AREAS</u>			
Treatment Cubicle	13.01	140	Per cubicle. Minimum of four (4) cubicles. 140 nsf per cubicle. Provide three cubicles per provider (PT) (or technicians – SEPS to determine) projected. This is a treatment area, which is defined by a front wall, and ceiling hung curtains. The curtain area is 96 nsf and the remainder of the area is for circulation and workstation area at the front of the cubicle.
Physical Therapy Treatment Room	13.01	140	One per clinic to allow increased privacy for treatment. Provide a second such room when the number of PTs projected exceeds 8.
Exercise Area		varies	One per clinic. One exercise station per PT and technician/aide projected. 65 nsf per exercise station. This includes the space for exercise machines, and also to include Isokinetic machines.

DoD Space Planning Criteria for Health Facilities

Physical Therapy

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>TREATMENT AREAS (Continued)</u>			
Mat/Platform Area	20.44	220	Minimum of one mat/platform. One mat/platform per every four PTs or PT technician projected. 220 nsf per mat/platform.
Wall or rack Storage in Exercise Area		varies	60 nsf minimum. 4 nsf (1 linear foot) of wall storage per exercise station projected.
Equipment Storage Room		Varies	Minimum 200 nsf. 40 nsf per PT projected.
Supply Storage Room		varies	Minimum 200 nsf. 30 nsf per PT projected.
Linen Storage	5.57 9.29	60 100	Provide an alcove when 6 or less PT's. Provide a room when more than 6 PT's.
Radiology Reading Room	11.15	120	Special justification required.
Gait Lane & Parallel Bar Area	18.58	200	One per clinic.
Dressing Room	6.0	65	One per clinic, minimum. Provide one additional dressing room for every four PT's over six.
Patient Shower	1.86	20	20 nsf per shower. Minimum of one shower per dressing room.
Extremity Whirlpool	5.57	60	One per clinic. May be deleted on authority of clinic chief.
Hydro-therapy Suite-Cubicle	39.49	425	One per clinic. Includes two extremity whirlpools, one shower trolley and workstation area. May be deleted on authority of clinic chief.
Therapeutic Pool	232.27	2500	Restricted to Medical Centers only when MEDICARE (patients over 65 years of age) is provided (TRICARE Senior). Justification is required.
Pool Changing Room and Shower			
Male	14.86	160	One per pool. Incorporate 2 showers and lockers for the storage of valuables and clothing of 12 patients.
Female	14.86	160	One per pool. Incorporate 2 showers and lockers for the storage of purses and clothing of 12 patients.
Inpatient Physical Therapy (on the ward)	44.59	480	One per orthopedic ward. One per every four med./surg. ward or fraction there of. If the hospital includes acardiology inpatient service place another such area on the medicine ward , which will house the cardiology patients. Provides space for exercise stations, Hi-Lo and wall storage. NOTE: This requirement is restated in inpatient section.

DoD Space Planning Criteria for Health Facilities

Physical Therapy

Functions that are required for Residency Education in P.T. Therapy Services:

Director of Physical Therapy Education	14.86	160	One per director of an in hospital Physical Therapy Education Program. (Typically the Chief Physical Therapist in the Clinic)
Secretary to Director with visitor waiting.	11.15	120	One per Director, if there is a projected FTE secretary position.
Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
Physical Therapy Education Library	22.29	240	One per clinic when there is a Physical Therapy Residency
Conference Room	37.16	400	One per Physical Therapy Residency Program
Small Group Counseling Rooms	11.15	120	One per eight physical therapy students in training (physical therapist or aide/assistant).

DoD Space Planning Criteria for Health Facilities
Audiology / Hearing Conservation / Speech Pathology / Ear Nose and
Throat (ENT) or Otorhinolaryngology Clinic

3.10.1. PURPOSE AND SCOPE:

This section sets forth space planning criteria for the outpatient audiology, hearing conservation, speech pathology, and Otorhinolaryngological Clinical Services in military health care facilities. Otorhinolaryngology clinics include: Ear, Nose and Throat (ENT) and Vestibular exams.

3.10.2. DEFINITIONS:

Audiology: Audiology services in military treatment facilities provide the following types of services: evaluation of the auditory system to include pure tone air and bone conduction, speech threshold and recognition testing, electrophysiological testing, vestibular evaluations, pre and post operative exams, dispensing and fitting of hearing aids and hearing protection, and hearing conservation services.

Educational and Developmental Intervention Services (EDIS): Educational and Developmental Intervention Services are governed by DoDI 1010.13 which mandates that all children with special needs receive the assistance they require in order to receive a proper education. In OCONUS locations the military medical service shares the responsibility for providing these services with DoDDS. Medical related services can include occupational therapy, physical therapy, psychology services, and speech and audiology services.

Hearing Conservation: Hearing Conservation services are provided separately from Clinical Audiology Services. Hearing Conservation will provide the following services: hearing testing for the determination of temporary or permanent threshold shift (TTS/PTS), fitting of appropriate hearing protection, health education.

Otorhinolaryngology: The branch of medicine concerned with medical and surgical treatment of the head and neck, including the ears, nose and throat.

Speech Therapy: Speech services in military treatment facilities provide diagnosis and treatment of speech, language, voice, and swallowing disorders. Patients with such communication disorders often have hearing deficiencies.

Vestibular: relating to the internal ear, where balance functions are governed.

DoD Space Planning Criteria for Health Facilities
Audiology / Hearing Conservation / Speech Pathology / Ear Nose and
Throat (ENT) or Otorhinolaryngology Clinic

3.10.3. POLICIES:

Clinic Composition: A separate audiology / speech therapy clinic will not be programmed if the number of audiologist and speech therapist's FTEs is 2 or less. When the workload of audio and speech does not support a separate clinic, the services may be combined with ENT, or otorhinolaryngology services.

A separate ENT clinic will be programmed if the number of otorhinolaryngologist FTEs is 3 or more. When the staffing of otorhinolaryngologist does not support a separate clinic, the services may be combined with either the general surgery clinic or audiology/hearing conservation and/or speech pathology services.

Educational and Developmental Intervention Services (EDIS): Adequate space for EDIS functions must be provided within OCONUS locations where dependents are sponsored. This may entail providing a single area for multiple specialties or it may simply entail ensuring the appropriate medical specialties are staffed within their own separate clinics. If a single EDIS area is provided, waiting and reception space, appropriate administrative office space, and appropriate treatment space (based on specialties included) will be provided. For the purpose of this chapter this could include locating an audiologist and/or speech pathologist within the EDIS area.

Separate Hearing Conservation Facilities: For the Army, a separate (freestanding) hearing conservation clinic will be constructed when there is an "at risk" hearing conservation population of 8,000 or greater.

3.10.4. PROGRAM DATA REQUIRED:

Is there a hearing conservation service in this MTF?
 Projected population supported by audiology program(s).
 Projected number of audiologist FTEs.
 Projected number of audiology technician FTEs.
 Projected number of speech therapist FTEs.
 Projected number of nurses assigned.
 Projected number of male staff.
 Is this the center for an Otorhinolaryngology Residency Program?
 Projected number of Otorhinolaryngologist assigned?
 Projected number of Otorhinolaryngologist residents assigned?
 Is there a Residency Research Technician for the Otorhinolaryngology Residency Program?

DoD Space Planning Criteria for Health Facilities
Audiology / Hearing Conservation / Speech Pathology / Ear Nose and
Throat (ENT) or Otorhinolaryngology Clinic

3.10.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS			
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Clinic Waiting Area	13.01	140	Minimum (provides for 7 seats). Provide 2.0 seats per audiologist or speech therapist FTE projected. Provide 2.0 seats for each ENT FTE provider projected. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting).
Clinic Reception Station/Control Ctr.	13.01	140	Minimum. One per clinic. 140 nsf per receptionist station for every 10 providers.
ENT Exam Room	11.15	120	Per room. 2 per doctor's office.
Vestibular Exam Room	13.94	150	1 per clinic, if this procedure performed in this department. Consider performing this function in treatment room, unless workload requires a dedicated room.
Patient Classroom/Conference Room	23.23	250	Minimum. One per every eight provider FTEs. Combine with another clinic if fewer than four provider FTEs.
Patient Toilets		varies	See Section 6.1.

STAFF AND SUPPORT AREAS			
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Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Speech Therapist Office	11.15	120	One per speech therapist (FTE) programmed.
Speech Therapy Technician's Office	11.15	120	One office per every three or fraction of three technician FTEs projected. (Do not include the senior technician if he or she is the NCOIC/LCPO or LPO).
Audiologist Office	11.15	120	One office per every audiologist FTE projected.
Doctor's Office (Otorhinolaryngologist)	11.15	120	1 per FTE provider assigned.
Audiology Technician's Office	11.15	120	One office per every three or fraction of three technician FTEs projected. (Do not include the senior technician if he or she is the NCOIC/LCPO or LPO).
Nurse Manager's Office	11.15	120	One per nurse manager FTE projected.

DoD Space Planning Criteria for Health Facilities
Audiology / Hearing Conservation / Speech Pathology / Ear Nose and
Throat (ENT) or Otorhinolaryngology Clinic

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

STAFF AND SUPPORT AREAS (Continued)
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Nurses' Workroom	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the clinic.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic.
Equipment Storage	9.29	100	1 per clinic.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair Storage	5.57	60	One per clinic.
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.

TESTING/TREATMENT: AUDIOLOGY/SPEECH PATHOLOGY		
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Audiology Pediatric Evaluation/Therapy Room	11.15	120	One per every two audiologist FTE projected.
Audiobooth Room (doubled walled booth)	11.15	120	One person booth. Minimum requirement when audiology service provided.
	34.75	375	One 2-6 person booth when total population exceeds 2,000.
Audiobooth Suite	17.65	190	One suite per audiologist programmed. If there is a hearing conservation program add an additional suite per 20,000 population supported.
Hearing Aid Fitting Room	18.58	200	One per clinic when two or more audiologist FTE projected. Combine with Hearing Aid Laboratory when only one audiologist FTE.
Hearing Aid Laboratory	9.29	100	One per clinic when two or more audiologist FTE projected. Reduce to 80 nsf and combine with Hearing Aid Fitting Room when only one audiologist FTE.
Vestibular Laboratory	9.29	100	One per clinic when two or more audiologist FTE projected. Combine with Auditory Electrophysiological Lab when only one audiologist FTE.
Auditory Electrophysiological Lab.	9.29	100	One per clinic when two or more audiologist FTE projected. Reduce to 80 nsf and combine with Vestibular Laboratory when only one audiologist FTE.
Videostroboscopy Room	13.94	150	One per clinic when services not provided in ENT. Also serves as location for computerized fluency assisted therapy, tracheoesophageal puncture (TEP) patient care and modified barium swallow results review.

DoD Space Planning Criteria for Health Facilities
Audiology / Hearing Conservation / Speech Pathology / Ear Nose and
Throat (ENT) or Otorhinolaryngology Clinic

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
TREATMENT: ENT (Otorhinolaryngology):			
ENT Treatment Room	13.94	150	Per room, 1 per 6 exam rooms.
Recovery Room	11.15	120	Per room, 1 per ENT Clinic. Provide only if conscious sedation is used.
Recovery Toilet	5.57	60	1 per recovery room.
Audiobooth Room	11.15	120	One person booth. One per every four otorhinolaryngologist assigned. May be combined with Audiology department.
Videostroboscopy Room	13.94	150	One per clinic. Also serves as location for computerized fluency assisted therapy, tracheoesophageal puncture (TEP), patient care and modified barium swallow results review.

Functions which are required for Residency Education in Otorhinolaryngology:
The following areas must be programmed if the MTF provides an Otorhinolaryngology Residency Program.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of Otorhinolaryngology Residency	11.15	120	One per director of an Otorhinolaryngology Residency Program.
Secretary to Director with Visitor Waiting	11.15	120	One per Director of an Otorhinolaryngology Program Director, if there is a projected FTE secretary position.
Otorhinolaryngology Residency Coordinator	11.15	120	One per Residency Program Coordinator if there is a projected FTE.
Residents' Office Space	11.15	120	Minimum, 60 nsf per projected resident.
Residency Library	22.29	240	One/Otorhinolaryngology Residency Program.
Conference Room	37.16	400	One per Otorhinolaryngology Residency Program.
Residents' Exam Room	11.15	120	Two examination rooms for each of the maximum of residents (all types) at any one time, who see patients in the clinic.
Residency Research technician	11.15	120	One per Residency Program, if there is a projected FTE.
Small Group Counseling Rooms	11.15	120	One per eight residents.

DoD Space Planning Criteria for Health Facilities
Audiology / Hearing Conservation / Speech Pathology / Ear Nose and
Throat (ENT) or Otorhinolaryngology Clinic

Freestanding Hearing Conservation Clinic:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS			
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Clinic Waiting Area	13.01	140	140 minimum (provides 7 seats). Provide 2 seats per audiologist or speech therapist FTE programmed. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (h.c. waiting)
Clinic Rec. Station/Control Counter	13.01	140	One per every 8 provider FTEs programmed.
Patient Toilets		varies	See Section 6.1.
Patient Classroom/Conference Room	20.90	225	One per clinic for every eight provider FTEs. Combine with another clinic if fewer than four provider FTEs.

STAFF AND SUPPORT AREAS			
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Audiologist Office	11.15	120	One office per every audiologist FTE programmed.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic.
Equipment Storage	9.29	100	1 per clinic
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter/Wheelchair storage	5.57	60	One per clinic.
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.

TREATMENT/ TESTING AREAS			
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Audiology Pediatric Evaluation/Therapy Room	11.15	120	One per every two audiologist FTE programmed.
Audiology Testing Booths	46.45	500	One 8 person booth for population of 8,000.
	92.91	1,000	Two 8 person booths for population of 12,500.
	139.36	1,500	Three 8 person booths for population of 20,000.
	185.81	2,000	Four 8 person booths for population of 30,000 or greater.
Audiobooth Suite	17.65	190	One suite per audiologist programmed. If there is a hearing conservation program add an additional suite per 20,000 population supported.
Hearing Aid Fitting Room	18.58	200	One per clinic if audiologist FTE programmed.

DoD Space Planning Criteria for Health Facilities
Audiology / Hearing Conservation / Speech Pathology / Ear Nose and
Throat (ENT) or Otorhinolaryngology Clinic

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Hearing Aid Laboratory	9.29	100	One per clinic if audiologist FTE programmed.
Vestibular Laboratory	9.29	100	One per clinic if audiologist FTE programmed.
Auditory Electrophysiological Lab.	9.29	100	One per clinic if audiologist FTE programmed.
Videostroboscopy Room	18.58	200	One per clinic when services not provided in ENT. Also serves as location for computerized fluency assisted therapy, TEP patient care and modified barium swallow results review.

DoD Space Planning Criteria for Health Facilities

General and Specialty Surgical Clinics

3.11.1. PURPOSE AND SCOPE:

This section sets forth space planning criteria for General Surgery and Specialty Surgical Clinical Services in military health care facilities. Specialty Surgical services include within this chapter: colorectal, neurosurgery, plastic surgery and cardiothoracic surgery.

Separate sections provide information on other specialty clinics, as listed below:

Specialty Medical Clinic	Section	Psychiatric Clinics	Section
Allergy/Immunization	3.17	Mental Health/Hygiene	3.18
Dermatology	3.15	Psychiatry	3.18
Endocrinology	3.15	Child Psychiatry	3.18
Gastroenterology	3.15	Clinical Psychology	3.18
Hematology/Oncology	3.15		
Infectious Disease	3.15	Women's Health	Section
Internal Medicine	3.15	OB/GYN	3.6
Nephrology	3.15	Family Planning	3.6
Neurology	3.15		
Rheumatology	3.15	Pediatrics	Section
		Adolescent	3.3
Cardiology/Pulmonary Services	Section	Infectious Disease Pediatrics	3.3
Cardiology	3.16	Well Baby	3.3
Pulmonary	3.16		
Preventative/Occupational Clinics:		Primary Care	Section
Aerospace, Aviation, and	3.4	Clinic of the Future	3.2
Submarine Medicine		Emergency	3.5
Community Health Nursing	3.19	Family Practice	3.1
Industrial Hygiene,	3.19	General Practice	3.1
Environmental and		Physical Examination	3.1
Bioenvironmental Sciences			
Occupational Health/Civilian	3.19	Specialty Surgical Clinics	Section
Employee Health Clinic		Colorectal	3.11
Preventive Medicine	3.19	General Surgery	3.11
		Neurosurgery	3.11
Eye, Ear, Nose & Throat	Section	Orthopedic/Podiatry	3.12
Audiology	3.10	Plastic Surgery	3.11
Ophthalmology/Optometry	3.13	Thoracic Surgery	3.11
Otorhinolaryngology (ENT)	3.10	Pain	3.11
Speech Therapy	3.10	Urology	3.14

3.11.2. DEFINITIONS:

Colorectal: Area of the lower portion of the colon or the rectum.

Endoscopy: Inspection of the interior of a canal or any air or food passage by means of an endoscope.

General surgery: That which deals with surgical problems of all kinds.

DoD Space Planning Criteria for Health Facilities

General and Specialty Surgical Clinics

Neurosurgery: Surgery of the nervous system, that is designed to restore normal conductivity in malfunctioning nerve fibers or to improve blood flow in the nerve tissue, or to alleviate mental illness.

Pain Clinic: A pain clinic focuses on the clinical methods used and the problems involved in the diagnosis and treatment of persistent and recurrent types of pain. A significant portion of the patients seen in a pain clinic have had accidents or surgery and are still in pain after the normal healing period has elapsed (more than 3-6 months). Examples of problems treated by a pain clinic may include: back, neck arm and leg pain, headaches, arthritis, herniations, Reflex Sympathetic Dystrophy (RSD), nerve damage, complex neurological problems, neuropathies, muscle disorders, muscular strains, and pain resulting from cancer and injuries. Treatment often includes the management of pain associated problems, such as sleep disorders, anxiety, depression and frustration.

Plastic Surgery: Plastic surgery is concerned in the shape and appearance of body structures that are defective, damaged or misshapened by injury, disease, or growth and development.

Proctology: The branch of medicine concerned with disorders of the rectum and anus and treatment of their diseases.

Provider: An individual, who examines, diagnoses, treats, prescribes medication and manages the care of patients within their scope of practice as established by the governing body of a healthcare organization. Providers are surgeons, physicians, physician's assistants and clinical nurse practitioners.

Thoracic Surgery: Surgery of the thorax or chest.

Vascular Surgery: Surgery of the blood vessels.

3.11.2. POLICIES:

Clinic Composition:

Whenever the workload of any specialty does not support more than two surgeon FTEs, a separate clinic should not be programmed. Surgical specialties that do not justify a separate clinic should be combined into an appropriate clinic grouping.

Providers' Examination Rooms: Each surgeon will be provided with two examination rooms.

Providers' Offices: Each FTE surgeon and provider on the staff, who has patient appointments, will be provided a private office.

Residents' Office Space: Private office space will not be programmed for graduate medical education residents. Residents who are in a graduate medical education program studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

Resident's Examination Rooms: Additional examination room space may be programmed into a clinic to provide space for "rotating residents" to see patients. A resident during his or her rotation in the clinic will use this space when they see patients as walk-ins or on appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients.

Note: these residents are not necessarily orthopedic residents only; family practice, internist and others residency programs may require a rotation in the surgery clinic.

DoD Space Planning Criteria for Health Facilities

General and Specialty Surgical Clinics

3.11.4. PROGRAM DATA REQUIRED:

Number of providers programmed.
 Distribution of surgeons by specialty and/or service.
 Maximum number of FTE residents seeing patients in the clinic at one time?
 Provide any surgical graduate medical education programs and the number of residents in each, i.e. general surg., plastic surg. neurosurgery, proctology, thoracic or vascular surgery.
 Is there a Residency Research Technician assigned?
 If there is a pain clinic, how many anesthesiologist and nurse anesthetists are assigned?
 If there is a pain clinic, how many psychologists are assigned?
 If there is a pain clinic, how many physical therapists are assigned?
 If there is a pain clinic, how many physical therapy technicians are assigned?
 Are all endoscopy procedures accomplished in the hospital operating room ?

3.11.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

Combining functions: When programming a clinic that includes multiple surgical disciplines (general surgery, thoracic surgery, vascular surgery, etc.), special procedure rooms that required similar support functions (patient holding, utility rooms and recovery areas) should be located in such a way as to combine as opposed to duplicating the support functions.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
PATIENT AREAS			
Clinic Waiting Area		varies	Provide one per clinic. Provide space for 3.0 seats to be in the waiting area for each provider FTE. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (hc wtg.).
Reception/Control	13.01	140	140 nsf per every 8 providers.
Provider’s Exam Rooms	11.15	120	Two per provider (FTE) programmed.
Screening Room	7.43	80	One per clinic.
Nurse Manager’s Office	11.15	120	One per clinic, when FTE programmed.
Patient Toilets		varies	See Section 6.1.
STAFF AND SUPPORT AREAS			
Provider’s Office	11.15	120	One per provider FTE programmed.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic, when FTE programmed.

DoD Space Planning Criteria for Health Facilities

General and Specialty Surgical Clinics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
STAFF AND SUPPORT AREAS (continued)			
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Tumor Registry	11.15	120	One per facility. See also section 3.15. Provide only one for both departments.
Clinic Conference / Classroom	23.25	250	One per clinic.
Staff Lounge/Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Equipment Storage	9.29	100	One per clinic.
Litter and Wheelchair storage	5.57	60	One per clinic.
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.
TREATMENT AREAS			
General Treatment			
Clean Treatment Room – general purpose	16.26	175	One per 4 providers for both dirty and clean treatment (see below). Can be used for General Surgery, Neurosurgery, Plastic Surgery and Thoracic Surgery.
Dirty Treatment Room – general purpose	16.26	175	One per 4 providers for both dirty and clean treatment (see above). Can be used for General Surgery, Neurosurgery, Plastic Surgery and Thoracic Surgery.
Treatment Room – two station	31.59	340	One per large clinics with over 12 or more providers. Includes space for two 120 nsf cubicles, plus a sink/work area. Can be used for General Surgery, Neurosurgery, Plastic Surgery and Thoracic Surgery.
Laser Treatment Room	16.26	175	One per clinic, if laser treatment performed.
Laser treatment equipment storage	7.43	80	One per laser treatment room.
Endoscopy Suite (includes Proctoscopy)			
Procedure Room – Endoscopy	40.87	280	Minimum. One for every 3 FTE general surgeons. Provide an additional room for every third additional general surgeons above three.
Procedure Room – Proctoscopy	18.58	200	Minimum. One for every 3 FTE proctologists. Provide an additional room for every third additional proctologists above three.
Dedicated Procto. Toilet	5.57	60	One per procto. Procedure room.
Equipment Storage	9.29	100	One per endo/procto. Suite.
Vascular/Thoracic Suite			
Microvascular Lab	18.58	200	One per clinic when vascular surgeon FTE projected

DoD Space Planning Criteria for Health Facilities

General and Specialty Surgical Clinics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Pain Clinic			
Office/Consult (for anesthesiologists, nurse anesthetists, psychologist and/or physical therapist).	11.15	120	One per FTE projected.
Procedure Room	16.26	175	One per 1 FTE programmed.
Examination Room	11.15	120	One per 1 anesthesiologist, nurse anesthetist, or physical therapist FTE programmed.
Physical Therapy Technicians' Office	11.15	120	One per every three or fraction of three physical therapy technician FTE programmed.
Equipment Storage	7.43	80	One per Pain Clinic.
Exercise Area	18.58	200	One per clinic, if ex. therapy performed. Allows space for 1 machine, mat area, with circulation. May be combined with Physical Therapy in Section 3.9.
Treatment Support Space			Use for all general treatment areas previously listed.
Soiled Utility	8.36	90	For up to 15 exam/treatment rooms.
	11.15	120	If 16-30 exam/treatment rooms.
	13.94	150	If > 30 treatment rooms.
Clean Utility Room	11.15	120	For up to 15 exam/treatment rooms
	13.94	150	If 16-30 exam/treatment rooms.
	16.72	180	If >30 treatment rooms.
Nurses' Workroom	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the clinic.
Scope Wash Room	11.15	120	One per clinic.
Instrument Processing Room (Soiled Utility)	7.43	80	Minimum of one. One per every two procedure rooms.
Clean Equipment Room	11.15	120	Minimum of one. Add an additional 60 nsf for each procedure room above two.
Recovery Room/Pre-Op Patient Holding	33.44	360	Minimum. 3 cubicles for first procedure room. Add 2 cubicles (at 120 nsf. each) for each additional procedure room.
Control/Observation Area	55.7	60	One per recovery/pre-operative patient holding room.
Patient Toilet	5.57	60	One per preoperative room/recovery patient holding room.
Dressing Cubicle	4.65	50	Minimum per cubicle. 1 cubicle per every treatment room.
Sub-waiting	7.43	80	If used, subtract 80 nsf from the total clinic waiting area. Place adjacent to treatment space.

DoD Space Planning Criteria for Health Facilities

General and Specialty Surgical Clinics

Functions which are required for Surgical Residency:

The following areas must be programmed if the MTF has Surgical Residency Program(s). These areas are in addition to those listed under common areas above.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of Residency	11.15	120	One per director of a Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of a Surgical Residency when there is a projected FTE secretary position.
Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
Coordinator	11.15	120	One per Surgical Residency Program Coordinator if there is a projected FTE.
Resident's Office Space	11.15	120	Minimum, 60 nsf per projected resident.
Residency Library	22.29	240	One per Surgical Residency Program.
Conference Room	37.16	400	One per Surgical Residency Program.
Residents' Exam Room	11.15	120	Two examination rooms for each of the maximum of residents (all types) at any one time, who see patients in the clinic.

DoD Space Planning Criteria for Health Facilities **Orthopedics/Podiatry/Chiropractic/Sports Medicine**

3.12.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for outpatient orthopedic and podiatry clinics, as well as for physical medicine and rehabilitation clinics, and chiropractic and sports medicine clinics.

3.12.2. DEFINITIONS:

Chiropractic Services: Chiropractic services provide diagnosis, evaluation and treatment for disorders of the nervous system. This is accomplished by a system of therapeutics that attributes disease to dysfunction of the nervous system. The goal is to restore normal function by manipulation and treatment of the body structures, especially those of the vertebral column.

Orthopedic Services: Orthopedic services provide preventive care, evaluation, diagnosis, treatment and consultation for the correction or prevention of skeletal deformities.

Patient Learning Resource Room: A patient learning resource room provides patients with publications and access to computers connected to the Internet to research diseases and health information.

Podiatry Services: Podiatry service is to provide preventive care and treatment to the human foot in health, injury or disease.

Physical Medicine and Rehabilitation Specialist: A physician, trained in a medical or osteopathic school, in an approved Physical Medicine and Rehabilitation residency. Services are both diagnostic and therapeutic, and range from pediatric to geriatric in age. PM&R specialists are also trained in the use of Electrodiagnostic Testing methods (Nerve Conduction Studies) for precise diagnosis of nerve and muscle disorders, acquired or inherited. In addition to routine musculoskeletal aches and pains, diagnosis and management recommendations are also made for those with amputation of limbs, traumatic brain injury, spinal cord injury, multiple sclerosis and many other degenerative nervous disorders.

Provider: A “provider” in an orthopedic/podiatry clinic is an orthopedic surgeon, physician, nurse practitioner, chiropractor, occupational/physical therapist, or a podiatrist.

Rotating Resident: A rotating resident is one from any graduate medical education specialty program (internal medicine, pediatrics, surgery, family practice, etc.) who, in the course of his or her education, must spend time in the services of another specialty. For example internal medicine residents are required to “do a rotation” in the OB/GYN service.

Sports Medicine Services: Sports Medicine services are typically provided by an orthopedic surgeon with a focus on prevention, treatment and rehabilitation of sports related injuries.

3.12.3. POLICIES:

Clinic Composition: If one or two providers are projected, this clinic should be combined with the general surgery clinic.

Providers’ Examination Rooms: Each provider will be provided with two examination rooms.

Providers’ Offices: Each physician, nurse practitioner, chiropractor, occupational/physical therapist, and podiatrist on the staff, who has patient appointments, will be provided a private office.

DoD Space Planning Criteria for Health Facilities **Orthopedics/Podiatry/Chiropractic/Sports Medicine**

Residents' Office Space: Private office space will not be programmed for graduate medical education residents. Residents who are in a graduate medical education program studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

Resident's Office/Examination Rooms: Additional office and examination room space may be programmed into a clinic to provide space for "rotating residents during his or her rotation in the clinic will use this space when they see patients as walk-ins or on appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients. Note: these resident are not necessarily orthopedic residents only, family practice, internist and others residency programs may require a rotation in the orthopedic clinic.

3.12.4. PROGRAM DATA REQUIRED:

Number of orthopedic technicians (FTE) projected?
 Number of orthopedic surgeon (FTE) projected?
 Number of podiatrist (FTE) projected?
 Number of chiropractors (FTE) projected?
 Number of sport medicine technicians (FTE) assigned?
 Will this clinic be staffed and operated full time?
 Number of orthopedic shop technicians (FTE) projected?
 Number of radiology technicians (FTE) projected?
 Number of nurses (FTE) projected?
 Is an orthopedic surgery residency, graduate medical education program part of this clinic's mission?
 What is the maximum number of orthopedic surgery residents receiving training in this clinic?
 What is the maximum number of residents (any GME program) that are seeing patients in the clinic at any one given time?
 Total staff number in this clinic (include residents, shared resource labor and borrowed labor)?
 Are chiropractic services available?
 Are sports medicine services available?
 Are massage services available?
 Are Physical Medicine and Rehabilitation services available?
 Number of physical medicine and rehabilitation medical specialist physicians (FTE) projected?
 Number of physical medicine and rehabilitation technicians (FTE) assigned?
 Is there a Residency Research Technician?

DoD Space Planning Criteria for Health Facilities
Orthopedics/Podiatry/Chiropractic/Sports Medicine

3.12.5. SPACE CRITERIA:

Orthopedic and Podiatry Services:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS

Clinic Waiting Area		varies	Provide 3 seats per provider for the maximum number of providers projected to be working in the clinic at one time, 16 nsf for 33% of the seats and 25 nsf for 67% of the seats (handicapped waiting).
Clinic Reception Station / Control Counter	13.01	140	Minimum. One per clinic. 140 nsf per reception station for every 10 providers.
Provider's Examination Rooms	11.15	120	Two per provider (FTE) programmed, also note residency education section.
Patient Toilets		varies	See Section 6.1.

STAFF AND SUPPORT AREAS

Provider's Office	11.15	120	One per each provider (FTE) projected. Also note residency education section.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Nurse Manager's Office	11.15	120	One per clinic when a nurse manager FTE projected.
Nurse's Work Room	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the clinic.
Conference Room	23.25	250	One per clinic if no orthopedic surgery residency training program. (See residency program requirements at the end of this section.)
Clean Utility Room	11.15	120	For up to 15 exam/treatment/cast rooms
	13.94	150	If 16-30 exam/treatment/cast rooms
	16.72	180	If >30 exam/treatment/cast rooms
Soiled Utility	8.36	90	For up to 15 exam/treatment/cast rooms..
	11.15	120	If 16-30 exam/treatment/cast rooms
	13.94	150	If > 30 exam/treatment/cast rooms
Equipment Storage	9.29	100	1 per clinic

DoD Space Planning Criteria for Health Facilities
Orthopedics/Podiatry/Chiropractic/Sports Medicine

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

STAFF AND SUPPORT AREAS (Continued)	
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Orthotics Laboratory			When orthotics technician(s) projected.
Plaster Molding Room	18.58	200	One per orthotics lab, for pouring and modifying plaster molds.
Sewing Room	11.15	120	One per orthotics lab.
Machine Room	27.87	300	One per orthotics lab. This room houses: sanders, cutting machines, an oven and vacuum forming machine for thermoplastic.
Fitting Rooms	7.43	40	Minimum of two fitting booths at 40 nsf each.
Application Adjustment & Modification Shop	13.00	140	Minimum when orthopedic shop technician assigned, add 200 nsf for each additional technician projected. Maximum 540 nsf.
Orthopedic digital viewing room	11.15	120	Special justification required.
Cast Room	16.72	180	Minimum. One per clinic. One table per every 60 orthopedic visits per week. Allows for 110 nsf inside cubicle and 70 nsf outside cubicle curtain. If less than four providers, this also serves as the "Treatment Room."
Plaster prep and storage	5.57	60	One per cast room.
Splint and Crutch Storage	9.29	100	Minimum. 20 nsf per orthopedic surgeon projected.
Radiology Reading Room	11.15	120	One per radiology exposure room.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair Storage	5.57	60	One per clinic.
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.

TREATMENT AREAS	
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Treatment Room	16.26	175	One room for up to 12 providers. Two rooms for 13 to 20 providers. One additional room for each additional 8 providers.
Portable X-ray Unit	3.72	40	One per mobile X-ray unit dedicated to the orthopedic clinic.
Radiology Exposure Room	27.87	300	One per orthopedic clinic when dedicated radiology technician assigned. Shared with Chiropractic Services, if required.

DoD Space Planning Criteria for Health Facilities
Orthopedics/Podiatry/Chiropractic/Sports Medicine

Physical Medicine and Rehabilitation Services:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS

Clinic Waiting Area		varies	Provide 3 seats per provider for the maximum number of providers projected to be working in the clinic at one time, 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting) . May be combined with other services in this section.
Provider's Exam/EMG Testing	11.15	120	One per each provider (FTE) projected.

STAFF AND SUPPORT AREAS

Provider's Office	11.15	120	One per each provider (FTE) projected.
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Chiropractor Services:

PATIENT AREAS

Clinic Reception/Control Counter	11.15	120	Normally shared with Orthopedics / Podiatry.
Patient Toilets		varies	See Section 6.1.
Exam/Treatment Room	11.15	120	Two per provider (FTE) projected.
Therapy Bay	7.43	80	Two to three per therapist (FTE) projected.
Massage Room	11.15	120	One per clinic if provided in the program.
Rehab Gym	18.58	200	One per four providers. May be shared with Sports Medicine.

STAFF AND SUPPORT AREAS

Provider's Office	11.15	120	One per provider FTE projected.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.

DoD Space Planning Criteria for Health Facilities
Orthopedics/Podiatry/Chiropractic/Sports Medicine

Sports Medicine:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS			
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Clinic Reception/Control Counter	11.15	120	Normally shared with Orthopedics / Podiatry.
EMG Cubicle	11.15	120	One station per department. Requires portable EMG unit only.
Patient Toilets		varies	See Section 6.1.

STAFF AND SUPPORT AREAS			
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Provider's Office	11.15	120	One per provider FTE projected.
Work Area/Computer Terminal	5.57	60	One station per department.
Ice Machine Alcove	3.72	40	One station per department.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.

TREATMENT AREAS			
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Treatment Room	11.15	120	Dependent on the particular programs.
Exam/Treatment Cubicle	7.43	80	Two exam/treatment rooms per each FTE provider. Requires room for modalities and carts.
Extremity Whirlpool	3.72	40	Dependent on the particular programs.
Performance Lab	23.23	250	If required, dependent on the particular program.

DoD Space Planning Criteria for Health Facilities
Orthopedics/Podiatry/Chiropractic/Sports Medicine

Functions which are required for Residency Education in Orthopedic Surgery.

The following areas must be programmed if the MTF provides an Orthopedic Surgery Residency Program.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of Orthopedic Surgery Residency	11.15	120	One per director of a Orthopedic Surgery Residency Program.
Secretary to Director with Visitor Writing	11.15	120	One per Director of an Orthopedic Surgery Residency Program, if there is a projected FTE secretary position.
Orthopedic Surgery Residency Coordinator	11.15	120	One per Orthopedic Surgery Residency Program Coordinator if there is a projected FTE.
Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
Residents' Office Space	11.15	120	Minimum. 40 nsf per projected resident.
Orthopedic Surgery Residency Office Library	22.29	240	One per Orthopedic Surgery Residency Program.
Conference Room	37.16	400	One per Orthopedic Surgery Residency Program.
Resident's Examination Room	11.15	120	Two examination rooms for each of the maximum number of residents (all types) at any one time, who see patients in the clinic.
Small Group Counseling Rooms	11.15	120	One per eight Orthopedists and residents.

DoD Space Planning Criteria for Health Facilities

Ophthalmology/Optometry Clinic

3.13.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for outpatient ophthalmology and optometry clinics.

3.13.2. DEFINITIONS:

Ophthalmology Services: Ophthalmology services are rendered by a physician who provides care dealing with the structure, functions and diseases of the eye, the performing of certain surgical procedures; and the counseling of patients regarding their surgical alternatives and vision needs as related to their occupations, avocations and lifestyle.

Optometry Services: These services are provided by an optometrist who provides comprehensive eye health and vision examinations; diagnosis and treatment of eye diseases and vision disorders, the detection of general health problems; the prescribing of glasses, contact lenses, low vision rehabilitation, vision therapy, and medications; the performing of certain surgical procedures; and the counseling of patients regarding their treatment alternatives and vision needs as related to their occupations, avocations and lifestyle.

Laser Eye Center: A service that is approved, staffed and equipped to correct vision (i.e. nearsightedness, farsightedness and astigmatism) via surgical procedures, often using lasers (Laser in Situ Keratomileusis [LASIK], Photo Refractive Keratectomy [PRK], Photo Therapeutic Keratectomy [PTK], Radial Keratectomy [RK], or Automated Lamellar Keratectomy [ALK].

3.13.3. POLICIES:

Each FTE provider is entitled to a maximum of one office and two eye lanes. The eye lanes may be any combination of any of the rooms listed in paragraph 3.13.5 below (i.e. full length eye lanes or folded eye lanes). The combination shall be determined at each facility, but the total number of eye lanes may not exceed two. The provider's office space may either be part of a combined office/eye lane or it may be a separate office.

3.13.4. PROGRAM DATA REQUIRED:

Is an ophthalmologist programmed?
 Is an optometrist programmed?
 Number of eye technicians programmed?
 Number of nurses programmed?
 Has this location been designated for laser corrective vision services?
 Projected clinic visits per year for the optometry service.
 Projected clinic visits per year for the ophthalmology service.
 Does the ophthalmology service provide phacoemulsification or extracapsular surgery?
 Is this a site with an ophthalmology residency program?
 Will a Laser Eye Center be offered within the clinic, or will it be a stand-alone clinic?
 How many administrative support staff spaces are needed?
 Can the laser eye center share eye lanes with other portions of the eye center?
 Is there a Residency Research Technician?

DoD Space Planning Criteria for Health Facilities

Ophthalmology/Optometry Clinic

3.13.5. SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS			
Clinic Waiting Area		varies	Provide space for 4.0 seats to be in the waiting area for each provider FTE. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped). Note: this waiting area may be divided into smaller waiting areas during the design.
Clinic Reception Station /Control Counter	11.15	120	Minimum. Includes space for 2 technicians. One reception station per clinic.
Patient Toilets		varies	See Section 6.1.
Fundus Camera Room	11.15	120	One per clinic, for two cameras.
Fitting and Dispensing Area	13.00	140	Minimum. Includes 20 nsf for display area for “frame of choice” frames.
	15.79	170	For optometrist staff of 3 to 4. Includes 20 nsf for display area for “frame of choice” frames.
	20.44	220	For optometrist staff of five or more. Includes 20 nsf for display area for “frame of ch frames.
Frame Storage Area	7.43	80	For storage of “frame of choice” material.
Visual Field	11.15	120	One per service (optometry & ophthalmology), i.e. a clinic with both ophthalmology and optometry services will have two visual field rooms.
Vision Screen	11.15	120	One per 2 FTE in each service (optometry & ophthalmology), i.e. a clinic with both ophthalmology and optometry services will have a minimum of two vision screening rooms.
Contact Lens Room	11.15	120	One per clinic.
Eye Lane (Army & Air Force)	17.19	185	2 per each ophthalmologist or optometrist FTE projected. Use this when a 25-ft. eye lane is required.
Eye Lane (Navy)	15.39	170	2 per each ophthalmologist or optometrist FTE projected. Use this when a 24-ft. eye lane is required.
Eye Lane – Folded Electronic	13.01	140	2 per each ophthalmologist or optometrist FTE projected. Use this when virtual image testing is performed.
Combination Eye Lane/Office (Army & Air Force)	21.37	230	2 per each ophthalmologist or optometrist FTE projected. Use this when a 25-ft. eye lane is required, in combination with an office. When this room is used, the FTE is not entitled to an additional separate office.

DoD Space Planning Criteria for Health Facilities
Ophthalmology/Optometry Clinic

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS (continued)			
Combination Eye Lane/Office (Navy)	20.44	220	2 per each ophthalmologist or optometrist FTE projected. Use this when a 24-ft. eye lane is required, in combination with an office. When this room is used, the FTE is not entitled to an additional separate office.
Combination Eye Lane/Office – Folded Electronic	17.65	190	2 per each ophthalmologist or optometrist FTE projected. Use this when virtual image testing is performed, and used in combination with an office. When this room is used, the FTE is not entitled to an additional separate office.
Ophthalmology Exam	13.01	140	2 per each ophthalmologist or optometrist FTE projected. Used when virtual image testing is performed.
STAFF AND SUPPORT AREAS			
Ophthalmologist/Optometrist Office	11.15	120	One per each FTE projected.
Nurse Managers Office	11.15	120	One per Nurse manager FTE projected.
Nurses’ Work Room	11.15	120	Minimum, if at least 1 FTE assigned. Add 40 nsf for each nurse above 4 assigned to the clinic.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic.
Clean Utility Room	11.15	120	For up to 15 exam/treatment rooms.
	13.94	150	If 16-30 exam/treatment rooms.
	16.72	180	If >30 treatment rooms.
Soiled Utility	8.36	90	For up to 15 exam/treatment rooms.
	11.15	120	If 16-30 exam/treatment rooms.
	13.94	150	If > 30 treatment rooms.
Equipment Storage	11.15	120	For up to 15 exam/treatment rooms.
	13.94	150	If 16-30 exam/treatment rooms.
	16.72	180	If >30 treatment rooms.
Conference Room	23.25	250	Minimum. One per clinic unless ophthalmology residency program mission (see Residency Program).
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair storage	5.57	60	One per clinic.
Janitors’ Closet	5.57	60	One janitor’s closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities
Ophthalmology/Optometry Clinic

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
TREATMENT AREAS			
Eye Treatment Room	16.26	175	One per clinic.
Laser Treatment Room	16.72	180	One per clinic when ophthalmologist assigned.
Ultrasound Room	11.15	120	One per ophthalmology and/or optometry service.
Large Treatment Room	18.58	200	One per clinic when a minor surgery suite is not authorized.
Minor Surgery Suite			Provide a minor surgery suite in an ophthalmology clinic only if phacoemulsification or extracapsular surgery procedures are performed. This service may be located in the Surgical Suite.
Operating Room	37.16	400	One per every six providers.
Recovery Room	22.30	240	Minimum 2 bed recovery form for each operating room. Add additional 230 nsf for each O.R. above one.
Recovery Toilet	3.72	40	One per recovery room.
Sterile Supply Room	9.29	100	One per recovery room.
Medi-Prep Room	9.29	100	One per recovery room.
Scrub Room	3.72	40	Minimum of one. One per every 2 O.R's.
Sub Sterilization Room	11.15	120	One per surgery suite.
Nurse Supervisor's Office	11.15	120	One per recovery room.
Nurses' Station	18.58	200	One per recovery room.
Ice Machine	1.86	20	One per recovery room.
Gurney Storage	8.36	90	One per recovery room.
Equipment Storage	46.45	500	One per recovery room.
Laser Eye Center			When an authorized service of this clinic.
Clinic Reception Station /Ctl. Counter	11.15	120	One reception station/clinic, if a free-standing.
PRK/Lasik	26.01	280	One per service.
Prep/Post Op. Room	27.87	300	One per service.
Equipment Sterilization Room	11.15	120	One per service.
Equipment Storage	13.94	150	One per service.
Treatment/Exam Rooms	11.15	120	One per service. Provide a treatment/exam or evaluation room, but not both.
Evaluation Room	22.30	240	One per service. Holds specialized equipment to measure corneas. Provide a treatment/exam or evaluation room, but not both.
Full Length Eye Lanes	21.37	230	4 Eye Lanes per Lasik Room. Determine if this number can be reduced if Laser Eye Center can share Eye Lanes with other functions within the Eye Clinic.
Med. Room	7.43	80	One per service.
Technician Workstation	11.15	120	Minimum. Provide 100 nsf per each additional FTE greater than 1.

DoD Space Planning Criteria for Health Facilities
Ophthalmology/Optometry Clinic

Functions which are required for Residency Education in Ophthalmology:

These areas are in addition to those listed under common areas above.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of Ophthalmology Residency	11.15	120	One per director of an Ophthalmology Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of an Ophthalmology Residency Program, if there is a projected FTE secretary position.
Ophthalmology Coordinator	11.15	120	One per Ophthalmology Program Coordinator if there is a projected FTE.
Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
Ophthalmology Resident	5.57	60	Provide one 60 nsf workstation per each assigned resident, FTE.
Ophthalmology Outpatient Records Room		varies	Provide space using the formula for outpatient records in Section 2.5, page 4. Decrease central outpatient records space by the amount programmed for Ophthalmology.
Ophthalmology Office Library	22.29	240	One per Ophthalmology Residency Program.
Ophthalmology Laboratory	5.57	60	One per program.
Conference Room	37.16	400	One per Ophthalmology Residency Program.
Small Group Counseling Rooms	11.15	120	One per eight ophthalmologists and residents.

DoD Space Planning Criteria for Health Facilities

Urology

3.14.1. PURPOSE AND SCOPE:

This section sets forth space planning criteria for the Urology Services in military health care facilities. These services are typically for inpatients and outpatients.

3.14.2. DEFINITIONS:

Cystoscopy: Visual examination of the interior of the bladder by means of a cystoscope.

Intravenous Pyelogram (IVP): An IVP (Intravenous Pyelogram) is an X-ray examination of the kidneys. After a plain film (without X-ray contrast) is obtained, the Radiologist injects radio-opaque contrast in a vein. A film is obtained immediately to determine the actual size of the kidneys. After waiting between five and ten minutes, another film is taken to show the collecting system as it begins to empty. Ideally the kidneys, ureters and bladder are all visualized on this film.

Provider: A provider in a urology service is a urologist.

Urodynamics: Urodynamics refers to a group of diagnostic procedures that are performed to evaluate voiding disorders. The goal of diagnosis and treatment of these disorders is to: (1) protect the kidneys and (2) keep the patient dry.

Urology: The branch of medicine concerned with the diagnosis and treatment of diseases (especially by surgical technique) of the urinary tract of both male and female and of the genital organs of the male.

Video urodynamics: Video urodynamics requires the availability of the most specialized urodynamic equipment. The digital monitoring systems take video image information from a fluoroscopy unit and provide digital video image, on screen with pressure data. This process allows the physician to visualize events in the lower urinary tract along with pressure, flow and EMG data.

3.14.3. POLICIES:

Clinic Composition: A separate urology clinic will not be programmed if the number of provider FTE's is 2 or less. When staffing does not support a separate clinic, the service may be combined with the general surgery clinic.

Providers' Examination Rooms: Each urologist will be provided with two examination rooms.

Providers' Offices: Each provider on the staff, who has patient appointments, will be provided a private office.

Residents' Office Space: Private office space will not be programmed for graduate medical education residents. Residents who are in a graduate medical education program studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

DoD Space Planning Criteria for Health Facilities

Urology

Resident's Office/Examination Rooms: Additional office and examination room space may be programmed into a clinic to provide space for "rotating residents" to see patients. A resident during his or her rotation in the clinic will use this space when they see patients as walk-ins or on appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients. Note: these residents are not necessarily urology residents only, family practice, and internist residency programs may require a rotation in the orthopedic clinic.

3.14.4. PROGRAM DATA REQUIRED:

Number of providers programmed?

Is there a urology residency program?

Maximum number of FTE residents seeing patients in the clinic at one time?

Number of nurse FTE's projected?

What is the number of urology residents in the teaching program at one time?

Is there a Residency Research Technician assigned?

Are cystoscopies performed in the Operating Room suite, instead of Urology?

DoD Space Planning Criteria for Health Facilities

Urology

3.14.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS			
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Clinic Waiting Area		Varies	Provide space for 3.0 seats to be in the waiting area for each provider FTE. 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting).
Reception/Control	13.01	140	Minimum. 140 nsf per every 8 providers.
Provider's Exam Rooms	11.15	120	Two per provider (FTE) programmed
Screening Room	7.43	80	One per clinic.
Patient Toilets		varies	See Section 6.1.

STAFF AND SUPPORT AREAS			
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Provider's Office	11.15	120	One per provider (FTE) programmed.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Nurse Manager's Office	11.15	120	One per clinic per projected FTE.
Nurse Workroom	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to this clinic.
NCOIC/LCPO/LPO Office	11.15	120	One per provider team.
Clean Utility Room	11.15	120	For up to 15 exam/treatment rooms.
	13.94	150	If 16-30 exam/treatment rooms.
	16.72	180	If >30 treatment rooms.
Urology Lab	7.43	80	One lab per clinic.
Scope Wash Room	9.29	100	One per urology clinic.
Equipment Storage and Maintenance Room	13.94	150	One per urology clinic.
Soiled Utility Room	11.15	120	One per urology clinic.
Sterile Supply Room	9.29	100	One per urology clinic.
Clinic Conference / Classroom	23.23	250	One per every 8 providers.
Staff Lounge and Lockers		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Litter and Wheelchair Storage	5.57	60	One per clinic
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Urology

Cystoscopy with fluoroscopy:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS

Outpatient Clinic Cystoscopy – Radiology - <i>recommend digital combination.</i>	27.87	300	See formula at 3.14.6. Minus number of cystoscopy rooms with fluoroscopic and optional urodynamic capability in OR. Locate in one place only: either in OR Section 4.4 or in this Section. Includes x-ray control booth.
Subwaiting	7.43	80	Minimum. Add 40 nsf for each cystoscopy room above one.
Dressing Cubicle	4.83	52	Per cubicle, 1 cubicle per treatment room.
Patient Toilet	5.57	60	1 per cysto. room. See Section 6.1.

STAFF AND SUPPORT AREAS

Digital Radiology Reading Room	11.15	120	One when cystoscopy service offered.
Scrub Area	6.50	70	Per every 2 treatment rooms. Provide 1 sink per cystoscopy room.

TREATMENT AREAS			
Treatment Room	14.87	160	One per urology service when one or more urologist FTE projected.
Recovery Room	11.15	120	120 nsf minimum (1 bed). Add 120 nsf for each additional cystoscopy and urology treatment room greater than 2.
Recovery Toilet	5.57	60	One per recovery room. See Section 6.1.
Control and Observation	5.57	60	One per recovery room.

Urodynamics:

Urodynamics Exam	14.86	160	Minimum of one per urology clinic. One room per every two Urologist FTEs programmed.
Dressing Cubicle	4.65	50	1 cubicle per 1 per treatment room.
Toilet	5.57	60	1 per treatment room. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Urology

Functions which are required for Residency Education in Urology:

The following areas must be programmed if the MTF has a Urology Residency Program. These areas are in addition to those listed under common areas above.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of Residency	11.15	120	One per director of a Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of Residency Program, if there is a projected FTE secretary position.
Coordinator	11.15	120	One per Program Coordinator if there is a programmed FTE.
Resident's Office Space	11.15	120	Minimum. 60 nsf per projected resident.
Residency Library	22.29	240	One per Urology Residency Program.
Residents' Exam Room	11.15	120	Two examination rooms for each of the maximum of residents (all types) at any one time, who see patients in the clinic.
Residency Research Technician	11.15	120	One per program, when there is a programmed FTE position.

3.14.6.: FORMULAS:

Cystoscopic Room Requirements:

$$\text{Cystoscopic Rooms} = \frac{(\text{annual urology visits}/52) \times 0.5}{0.6 \text{ proc per hr per room} \times 30 \text{ hr per wk}}$$

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

3.15.1. PURPOSE AND SCOPE:

This section sets forth space planning criteria for the Specialty Medical Clinical Services in military health care facilities. Specialty Medical clinics include within this chapter: Dermatology, Endocrinology, Gastroenterology, Hematology/Oncology, Infectious Disease, Internal Medicine, Nephrology, Neurology, and Rheumatology.

Separate sections provide information on other specialty clinics, as listed below:

Specialty Medical Clinic	Section	Psychiatric Clinics	Section
Allergy/Immunization	3.17	Mental Health/Hygiene	3.18
Dermatology	3.15	Psychiatry	3.18
Endocrinology	3.15	Child Psychiatry	3.18
Gastroenterology	3.15	Clinical Psychology	3.18
Hematology/Oncology	3.15		
Infectious Disease	3.15	Women's Health	Section
Internal Medicine	3.15	OB/GYN	3.6
Nephrology	3.15	Family Planning	3.6
Neurology	3.15		
Rheumatology	3.15	Pediatrics	Section
		Adolescent	3.3
Cardiology/Pulmonary Services	Section	Infectious Disease Pediatrics	3.3
Cardiology	3.16	Well Baby	3.3
Pulmonary	3.16		
Preventative/Occupational Clinics:		Primary Care	Section
Aerospace, Aviation, and	3.4	Clinic of the Future	3.2
Submarine Medicine		Emergency	3.5
Community Health Nursing	3.19	Family Practice	3.1
Industrial Hygiene,	3.19	General Practice	3.1
Environmental and		Physical Examination	3.1
Bioenvironmental Sciences			
Occupational Health/Civilian	3.19	Specialty Surgical Clinics	Section
Employee Health Clinic		Colorectal	3.11
Preventive Medicine	3.19	General Surgery	3.11
		Neurosurgery	3.11
Eye, Ear, Nose & Throat	Section	Orthopedic/Podiatry	3.12
Audiology	3.10	Plastic Surgery	3.11
Ophthalmology/Optometry	3.13	Thoracic Surgery	3.11
Otorhinolaryngology (ENT)	3.10	Pain	3.11
Speech Therapy	3.10	Urology	3.14

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

3.15.2. DEFINITIONS:

Bronchoscopy: The endoscopic examination and treatment of the tracheobronchial system.

Dermatology: The medical specialty concerned with the diagnosis and treatment of diseases of the skin.

Endocrinology: The study and treatment of diseases of the endocrine (hormonal) system and its role in the physiology of the body.

Endoscopy: Inspection of the interior of a canal or any air or food passage by means of an endoscope.

Gastroenterology: The study and treatment of diseases of the digestive system, to include the esophagus, stomach, intestines, pancreas, liver and biliary tracts.

Hematology: The study and treatment of diseases of the blood and blood forming tissues.

Infectious Disease: A disease (any deviation from or interruption of the normal structure or function of any part, organ or system of the body that is manifested by a characteristic set of symptoms and signs) that is caused by or capable of being communicated by infection (invasion and multiplication of micro-organisms in body tissues). An infectious disease specialist provides consultation and treatment for problems related to viral, bacterial, parasitic or fungal diseases.

Internal Medicine: Discipline encompassing the prevention, diagnosis, and nonsurgical treatment of disease in adults.

Nephrology: The diagnosis and treatment of the function and diseases of the kidney.

Neurology: That branch of medical science, which deals with the nervous system, both normal and in disease. Clinically, that specialty concerned with the diagnosis and treatment of disorders of the nervous system.

Oncology: The diagnosis and treatment of cancer, often used in conjunction with the hematology specialty as in "hematology-oncology" or "heme-onc."

Proctology: The branch of medicine concerned with the study of the rectum and anus and the treatment of their diseases.

Provider: An individual, who examines, diagnoses, treats, prescribes medication and manages the care of patients within their scope of practice as established by the governing body of a healthcare organization. General providers are physicians, physician's assistants and clinical nurse practitioners.

Rheumatology: The branch of medicine dealing with rheumatic disorders, their causes, pathology, diagnosis, treatment, etc. Rheumatic disorders are any of a variety of disorders marked by inflammation, degeneration, or metabolic derangement of the connective tissue structures of the body, especially the joints and related structures.

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

3.15.3. POLICIES:

Clinic Composition: Whenever the workload of any specialty does not support more than two provider FTEs, a separate clinic should not be programmed. Medical specialties that do not justify a separate clinic should be combined into the internal medicine clinic or may be combined into two or three specialty medical services in one clinic. This excludes hematology/oncology clinics, which should not be combined with other clinics.

Diabetic Care Clinics: space requirements are determined in a case-by-case study, base on workload.

Hematology/Oncology Clinic: Hematology/Oncology clinics will not be combined with other clinics.

Providers' Examination Rooms: Each provider will be provided with two examination rooms.

Providers' Offices: Each provider on the staff, who has patient appointments, is provided a private office.

Residents' Office Space: Private office space will not be programmed for graduate medical education residents. Residents who are in a graduate medical education program studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

Resident's Office/Examination Rooms: Additional office and examination room space may be programmed into a clinic to provide space for "rotating residents" to see patients. A resident during his or her rotation in the clinic will use this space when they see patients as walk-ins or on appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients. Note: these resident are not necessarily specialty medical residents only, family practice, and internist residency programs may require a rotation in the orthopedic clinic.

3.15.4. PROGRAM DATA REQUIRED:

- How many chemotherapy treatments projected for each year?
- Number of providers programmed.
- Distribution of providers by specialty and/or service.
- Distribution of nurse practitioners by specialty or service.
- Maximum number of FTE residents seeing patients in the clinic at one time?
- Is there a Residency Research Technician assigned?
- Provide any medical graduate medical education programs and the number of residents in each.
- Is a Lab required in dermatology?
- Is a treatment room required for endocrinology?
- How many renal dialysis patients are enrolled for treatment?
- How many renal dialysis chairs are required?
- Is a renal specialist programmed?
- Is Neurology/Psych. pediatric testing programmed?
- Is an esophageal Motility Room required in gastroenterology?
- Is a Pharmacist Office required in hematology/oncology?
- Is a Social Work Specialist programmed?
- Is renal dialysis home training provided?
- Is nourishment provided to renal dialysis patients?
- Is a Diabetes Care Clinic required?
- Are there special needs such as patient education?
- Is an Education Nurse programmed?
- How many types of lasers are used?

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

3.15.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

Physician's Offices - Each physician, physician's assistant, clinical nurse practitioner, and allied scientist on the staff will be provided a private office based on the following criteria: (excluded offices are provided under other criteria, such as Radiologists, Pathologists, Anesthesiologists, Commanders, etc.).

Combining functions: When programming a clinic that includes multiple special procedure rooms that require similar support functions (patient holding, utility rooms and recovery areas), the support areas should be located in such a way that they should be combined as opposed to duplicating the support functions.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
PATIENT AREAS			
Clinic Waiting Area		varies	Provide one per clinic. Provide 3 seats per provider (except dermatology) for the maximum number of providers projected to be working in the clinic at one time. Provide 4 seats per dermatology provider for the maximum number of providers projected to be working in the clinic at one time. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting).
Reception/Control	13.01	140	One per clinic.
Patient Toilet	5.57	60	See Section 6.1..
Screening, Weights and Measures	7.43	80	One per each 4 providers.
Provider’s Exam Rooms	11.15	120	Two per provider (FTE) programmed. Can be used for Dermatology, Endocrinology, Gastroenterology, Hematology/Oncology, Infectious Disease, Internal Medicine, Nephrology, Neurology, and Rheumatology providers, when not listed separately below.
Isolation Room	11.15	120	One per clinic, if required for infection control.
Patient Learning Resource Room	11.15	120	One per department. See section 2.2.

DoD Space Planning Criteria for Health Facilities
Specialty Medical Clinics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
STAFF AND SUPPORT AREAS			
Provider’s Office	11.15	120	One per provider FTE programmed. Can be used for Dermatology, Endocrinology, Gastroenterology, Hematology/Oncology, Infectious Disease, Internal Medicine, Nephrology, Neurology, and Rheumatology providers, when not listed separately below.
Nurse Manager’s Office	11.15	120	One per provider FTE programmed.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Nurses’ Workstation	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the clinic.
NCOIC/LCPO/LPO Office	11.15	120	One per FTE programmed.
Advice Nurse(s) Area	9.29	100	Minimum when one advice nurse FTE programmed. Add 60 nsf per each additional FTE programmed.
Education Nurse	11.15	120	One per FTE programmed.
Clean Utility Room	11.15	120	For up to 15 exam/treatment rooms
	13.94	150	If 16-30 exam/treatment rooms
	16.72	180	If >30 treatment rooms
Soiled Utility	8.36	90	For up to 15 exam/treatment rooms.
	11.15	120	If 16-30 exam/treatment rooms
	13.94	150	If > 30 treatment rooms
Equipment Storage	9.29	100	1 per clinic
Conference Room(s)	23.23	250	One per every 8 provider FTEs.
Literature Forms and AV Storage	9.29	100	One per department.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Toilets Public and Staff		varies	See Section 6.1.
Litter and Wheelchair storage	5.57	60	One per clinic.
Janitors’ Closet	5.57	60	One janitor’s closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

TREATMENT AREAS			
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Treatment Room -general purpose	16.26	175	Minimum one. One per 6 providers. Can be used for Endocrinology, Infectious Disease, Internal Medicine, Nephrology, and Neurology providers, when not listed separately below.
Treadmill/Stress Test Room	20.44	220	Minimum. One for internal medicine when there is not a separate cardiology service.
Electrocardiogram (EKG) Testing Room	11.15	120	Minimum. One per clinic, when not listed separately below.
EKG Work Room	7.43	80	One per EKG Testing Room.
Dressing Cubicle	4.65	50	One per multi-station EKG area.

Dermatology:

STAFF AND SUPPORT AREAS			
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Dermatology Laboratory	5.57	60	One per clinic.
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TREATMENT AREAS			
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Treatment Room -Dermatology	16.26	175	Minimum of one. One room per every 2 providers.
Outpatient Dermatology/Cryotherapy	11.15	120	Minimum of one room, 175 nsf when dermatologist FTE projected. Add a second room when 3 or more dermatologists FTEs projected.
Outpatient Dermatology, Ultraviolet Booth	11.15	120	Minimum of one when a dermatologist FTE projected. Add additional booth when more than five dermatologists.
Laser Treatment Room	11.15	120	One treatment room per each type of laser.

Gastroenterology :

STAFF AND SUPPORT AREAS			
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Clean Equipment Room	11.15	120	Minimum of one. Add an additional 60 nsf for each procedure room above two.
Scope Wash Room	11.15	120	One per clinic.
Dedicated Janitor's Closet	5.57	60	One per clinic in support of special procedure room(s).

DoD Space Planning Criteria for Health Facilities
Specialty Medical Clinics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Gastroenterology (Continued) :			
TREATMENT AREAS			
Digital Fluoroscopic Room	27.87	300	One per gastroenterologist FTE projected. Determine if this will be located in this clinic or in Radiology.
Dedicated Toilet	5.57	60	One per fluoroscopy room.
Dedicated Dressing Cubicle	4.65	50	One per fluoroscopy room.
Fluoroscopy Waiting Area	5.57	60	Minimum. Add 40 nsf for each fluoroscopy room greater than one.
Image Reading Room	11.15	120	One per clinic when any imaging capability included in the facility.
Treatment Room, Proctoscopic Exam Room	22.30	240	One per proctologist FTE projected.
Dedicated Toilet	5.57	60	One per proctoscopic room.
Dedicated Dressing Cubicle	4.65	50	One per protoscopic room.
Treatment Room, Endoscopy Room	26.01	280	One per gastroenterologist FTE provider.
Dedicated Toilet	5.57	60	One per endoscopic room.
Dedicated Dressing Cubicle	4.65	50	One per endoscopic room.
Endoscopy Sub Waiting Area	5.57	60	Minimum. Add 40 nsf for each endoscopy room above one.
Recovery Room/Pre-Op Patient Holding	22.30	240	Minimum (2 cubicles). Add 120 nsf for each additional procedure room.
Patient Toilet	5.57	60	One per Recovery Room/Pre-Op room.
Control/Observation Area	55.7	60	One per Recovery Room/Pre-Op room.
Esophageal Motility Study Room	13.01	140	One per clinic when more that one gastroenterologist FTE projected. Ensure that the concept of operation for the MTF is to accomplish Esophageal Motility Studies in the clinic and not in Radiology.

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

Renal Dialysis Unit:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS

Waiting Area	13.01	140	Minimum. Provide 2 seats per each renal dialysis station.
Clinic Reception Station/Control Counter	11.15	120	One per renal dialysis unit.
Patient Belongings Storage	7.43	80	Minimum.
Exam Room	11.15	120	One per each FTE provider programmed.
Renal Dialysis Station, Chair	11.15	120	1 station (chair) per every seven patients enrolled in renal dialysis. (See formula at 3.15.6).
Patient Toilet	5.57	60	One in association with dialysis station area.
Renal Dialysis Home Training Room	11.15	120	1 per unit, if home training is provided.
Examination/Peritoneal Dialysis Room	11.15	120	1 per unit.

STAFF AND SUPPORT AREAS

Nurses' Workstation	11.15	120	One per renal dialysis unit.
Unit Directors Office	11.15	120	One per renal dialysis unit.
NCOIC/LCPO/LPO Office	11.15	120	One per renal dialysis unit.
Dietician	11.15	120	One per clinic, if FTE programmed.
Pharmacist	11.15	120	One per clinic, if FTE programmed.
Social Work Services	11.15	120	One per clinic, if FTE programmed.
Nourishment Room	11.15	120	1 per unit, when nourishment is provided to patients.
Renal Studies Laboratory	11.15	120	One per clinic when a renal specialist FTE is projected.
Medication Preparation/Dispensing Room	7.43	80	One per renal dialysis unit.
Supply Storage Room	7.43	80	Minimum. Provide 40 nsf for each additional renal dialysis treatment station above two.
Clean Work Room	14.86	160	One per renal dialysis unit. Includes clean linen storage.
Soiled Utility Room	11.15	120	One per renal dialysis unit.
Reprocessing room	9.29	100	One per clinic, only if dialyzers are re-used.
Water treatment/concentrate room	11.15	120	Minimum. Add 30 nsf for each additional chair greater than four.
Dedicated Storage	5.57	60	For home healthcare information/equipment. Add 15 nsf for each additional chair greater than four.
Nurses' Work Area	5.57	60	Minimum. Add 20 nsf for each nurse above 4 assigned to this department.

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

Renal Dialysis Unit (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS (Continued)			
Staff Toilet	5.57	60	See Section 6.1..
Litter and Wheelchair Space	1.86	20	One per renal dialysis unit.
Dedicated Janitor’s Closet	5.57	60	One per renal dialysis unit.

Rheumatology:

Treatment Room	16.26	175	One per clinic. At Medical Centers only.
Infusion Therapy Area	22.30	240	2 chairs per clinic if FTE provider programmed. 120 nsf per chair. Add two chairs (120 nsf each) for each additional provider greater than 1. May be shared with dialysis and/or chemotherapy. At Medical Centers only.
Synovial Fluid Analysis Room	11.15	120	At Medical Centers only. One per clinic. Note: this space can be combined with in the Renal Dialysis Lab or the Chemotherapy area.

Neurology:

Electromyography (EMG) Room	11.15	120	One per clinic when a neurologist FTE projected.
EMG Work Area	7.43	80	One per EMG Room.
EEG Testing Room	11.15	120	One room for when one neurologist FTE programmed. Two rooms for up to three neurologist FTEs programmed.
EEG Work Room	7.43	80	One for every EEG Testing Rooms.

Treatment/Procedure Support (For areas without dedicated support):

Recovery Room/Pre-Op Patient Holding	22.30	240	Minimum (2 cubicles) for procto., endo. or fluoro. procedure room. Add 120 nsf for each additional procedure room.
Patient Toilet	5.57	60	One per Recovery Room/Pre-Op room.
Control/Observation Area	5.57	60	One per Recovery Room/Pre-Op room.
Dressing Cubicle	4.65	50	One per every treatment/procedure room.

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

Hematology/Oncology Clinic			This is a separate clinic, and is not to be combined with other clinics.
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FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS			
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Clinic Waiting Area		varies	Provide one per clinic. Provide 2 seats per each treatment room, exam room and chemo. treatment station. Provide 16 nsf for 95% of the seats and 25 nsf for 5% of the seats (handicapped waiting).
Reception/Control	13.01	140	One per clinic.
Patient Toilet	5.57	60	See Section 6.1.
Screening, Weights and Measures	7.43	80	One per each 4 providers.
Provider's Exam Rooms	11.15	120	Two per provider (FTE) programmed.
Counseling/Consult Room	11.15	120	One per clinic.

STAFF AND SUPPORT AREAS			
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Provider's Office	11.15	120	One per provider FTE programmed..
Nurse Manager's Office	11.15	120	One per provider (FTE) programmed.
Nurses' Workstation	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the clinic.
NCOIC/LCPO/LPO Office	11.15	120	One per provider team.
Tumor Registry	11.15	120	One per clinic. See also section 3.11. Provide only one for both departments.
Pharmacist's Office	11.15	120	One office per pharmacist FTE programmed.
Nurse Practitioner's Office	11.15	120	One office per nurse practitioner FTE projected.
Social Worker's Office	11.15	120	One per social worker FTE projected.
Social Work Specialist Office	11.15	120	One per social work specialist FTE projected.
Group Therapy Room	18.58	200	One per oncology service.
Clean Utility Room	11.15	120	For up to 15 exam/treatment rooms
	13.94	150	If 16-30 exam/treatment rooms
	16.72	180	If >30 treatment rooms
Soiled Utility	8.36	90	For up to 15 exam/treatment rooms.
	11.15	120	If 16-30 exam/treatment rooms
	13.94	150	If > 30 treatment rooms
Chemo Medication Prep Room	11.15	120	One if pharmacist assigned (one FTE).
	5.57	60	One if no full time pharmacist assigned.
Supply Storage Room	9.29	100	One per clinic.
Staff Toilet	5.57	60	See Section 6.1.
Litter and Wheelchair Storage	5.57	60	One per clinic.

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
TREATMENT AREAS			
Chemotherapy Treatment Room	27.87	300	Minimum (3 stations). One per oncology service, add 100 nsf for each 1,000 additional annual chemotherapy treatments above 4,000.
Treatment Room, Hem/Onc.	16.26	175	One per provider FTE programmed.
Holding Area	22.30	240	Minimum (3 reclining chairs with chairs for escorts). Add additional 80 nsf for each 2 chemotherapy treatment station in excess of three.
Holding Area Toilet	5.57	60	One per Chemotherapy Holding Area.

Functions which are required for Residency Education in a Specialty Medical Clinics:

The following areas must be programmed if the MTF provides a medical specialty Residency Program. These areas are in addition to those listed under common areas above.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Director of Residency	11.15	120	One per director of a Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of a Specialty Medical clinic Residency Program, if there is a projected FTE secretary position.
Coordinator	11.15	120	One per Specialty Medical clinic Program Coordinator if there is a projected FTE.
Resident's Office Space	11.15	120	120 nsf minimum. Plus 60 nsf per each additional resident over 2.
Residency Research Technician	11.15	120	One per program, when there is a projected FTE position.
Residency Library	22.29	240	One per Specialty Medical clinic Residency Program.
Conference Room	37.16	400	One per Specialty Medical clinic Residency Program.
Residents' Exam Room	11.15	120	Two examination rooms for each of the maximum of residents (all types) at any one time, who see patients in the clinic.

DoD Space Planning Criteria for Health Facilities

Specialty Medical Clinics

3.15.6 FORMULAS:

Programming of renal dialysis stations – the criteria for 1 station (chair) per every seven patients enrolled in renal dialysis was based on the following assumptions:

- 1) Assume a 12-hour day, six- day week.
- 2) Assuming the 12-hour day, 3 patients per day will be served.
- 3) If an 8-hour day is used, only 2 patients per day can be served.
- 4) Patients typically require 2.5 to 3.5 hours per dialysis and 80% of patients require dialysis 3 times a week, while 20% require dialysis 4 times a week.

If any of these assumptions if different than the actual renal dialysis operation, the criteria should be altered accordingly.

DoD Space Planning Criteria for Health Facilities

Cardiology/Pulmonary Services

3.16.1. PURPOSE AND SCOPE:

This section sets forth space planning criteria for the Cardiology/Pulmonary Services in military health care facilities. These services are typically for inpatients and outpatients.

3.16.2. DEFINITIONS:

Cardiology: The study of the heart and its functions.

Pulmonology: The science concerned with the anatomy, physiology, and the pathology of the lungs.

Provider: A “provider” in a cardiology/pulmonary service is an individual, who examines, diagnoses, treats, prescribes medication and manages the care of patients within their scope of practice as established by the governing body of a healthcare organization. Providers are pulmonologists, cardiologists, respiratory therapists, physicians, physician's assistants and clinical nurse practitioners.

Rotating Resident: A rotating resident is one from any graduate medical education specialty program (internal medicine, pediatrics, surgery, family practice, etc.) who, in the course of his or her education, must spend time in the services of another specialty. For example internal medicine residents are required to “do a rotation” in the cardiology/pulmonary service.

3.16.3. POLICIES:

Clinic Composition: A separate cardiology/pulmonary clinic will not be programmed if the number of provider FTEs is 2 or less. When staffing does not support a separate clinic, the service may be combined with internal medicine. Cardiology and pulmonary clinics may be separate clinics at larger facilities.

Providers’ Examination Rooms: Each provider will be provided with two examination rooms.

Providers’ Offices: Each provider on the staff, who has patient appointments, will be provided a private office.

Residents’ Office Space: Private office space will not be programmed for graduate medical education residents. Residents who are in a graduate medical education program studying to become a specialist in the service being programmed, will be provided with shared office space of 60 nsf per resident in the program. An office for a rotating resident may be programmed in the clinic for residents who see patients.

Resident’s Office/Examination Rooms: Additional office and examination room space may be programmed into a clinic to provide space for “rotating residents” to see patients. A resident during his or her rotation in the clinic will use this space when they see patients as walk-ins or on appointment. One office and two examination rooms may be programmed for each resident FTE projected to be in the clinic seeing patients. Note: these resident are not necessarily cardiologist residents only, family practice and internist may require a rotation in the orthopedic clinic.

DoD Space Planning Criteria for Health Facilities

Cardiology/Pulmonary Services

3.16.4. PROGRAM DATA REQUIRED:

Cardiology:

Number of cardiologist FTEs projected?
 Maximum number of FTE residents seeing patients in the clinic at one time?
 Number of nurses FTEs projected?
 Is there a cardiology residency program?
 Is there a Residency Research Technician assigned?
 What is the maximum number of “rotating residents” that will be working in the clinic at any one time?
 Number of FTE cardiologist(s) programmed.
 Is a Stress Echo. room required?
 Is a Transesophageal Echo. Room required?
 Is an Ultrasound Room required?
 Is there a treadmill room?
 Is there a treadmill room?
 Is a Cardiac Cath. Lab authorized?
 Is a Pacemaker Room required?
 What type of Cardiac Cath. ADP computer equipment is required?
 Average number of outpatient EKG tests per week.

Pulmonology:

Number of pulmonologist FTEs projected?
 Number of respiratory therapist FTEs projected?
 Maximum number of FTE residents seeing patients in the clinic at one time?
 Number of nurses FTEs projected?
 Is there a pulmonary residency program?
 Is there a Residency Research Technician assigned?
 What is the maximum number of “rotating residents” that will be working in the clinic at any one time?
 Is an Blood Gas Analysis trained technician programmed?
 Average number of Inhalation treatments per week?
 Is there a Pulmonary Function Lab?
 Is there a Sleep Studies Room?
 Is there a Home Care Coordinator?
 Is a bronchoscopy procedure performed in this clinic or in the OR?

DoD Space Planning Criteria for Health Facilities

Cardiology/Pulmonary Services

3.16.5 SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
PATIENT AREAS			
Clinic Waiting Area		Varies	Provide 5 seats per provider for the maximum number of providers projected to be working in the clinic at one time, 16 nsf for 60% of the seats and 25 nsf for 40% of the seats (handicapped waiting).
Reception/Control Counter	13.01	140	Minimum. 140 nsf per every 8 providers.
Provider’s Exam Rooms	11.15	120	Two per provider (FTE) programmed.
Patient Education Room	20.90	225	One per clinic.
Patient Toilet		varies	See Section 6.1.
STAFF AND SUPPORT AREAS			
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Provider’s Office	11.15	120	One per provider (FTE) programmed.
Respiratory Technician Work Room	5.57	60	Minimum. 60 nsf per each technician.
Nurse Manager’s Office	11.15	120	One per clinic per programmed FTE.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic.
Clinic Conference / Classroom	23.23	250	One per clinic. Provide one each, if Cardiology and Pulmonology are two separate clinics.
Staff Lounge		varies	See Section 6.1.
Staff Lockers		varies	See Section 6.1.
Clean Utility Room	11.15	120	One per clinic.
Soiled Utility Room	8.36	90	One per clinic.
Nurses’ Workroom	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to clinic.
Litter and Wheelchair Storage	5.57	60	One per clinic.
Janitor’s Closet	5.57	60	One janitor’s closet per 10,000 nsf. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Cardiology/Pulmonary Services

<u>CARDIOLOGY CLINIC</u>			Cardiology and pulmonary clinics may be separate clinics at larger facilities. Must have a minimum of two cardiologist FTE projected.
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PATIENT AREAS			
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Screening, Weights and Measures	7.43	80	One per each 4 providers.
Patient Education Room	11.15	120	One per clinic.
Outpatient Electrocardiogram (EKG) Testing	11.15	120	Minimum. Total number of rooms may be more. See formula in Section 3.16.6.
Stress Echocardiograph Room	26.94	290	1 per Cardiology clinic, if required.
Echocardiograph Room	13.01	140	One room per every 1000 echoes performed annually.
Echocardiograph Reading Room, 2 station	11.15	120	One room per every two echocardiograph rooms.
Transesophageal Echo. Room	20.44	220	One per clinic if transesophageal echo. procedures performed. May collocate with Cardiac Cath. Area.
Observation Area	5.57	60	One per transesophageal echo. room.
Recovery Area	11.15	120	One per transesophageal echo. room.
Ultrasound Room	15.33	165	One, if part of the concept of operation and if qualified technician or qualified physician (FTE) programmed.
Tilt Table Testing Room	11.15	120	1 per clinic.
Pacemaker, ICD Interrogation Room	11.15	120	1 per clinic.
Outpatient Treadmill Room	20.53	220	Minimum of one per Cardiology clinic when cardiologist is programmed. Provide second room when more than 1000 echoes performed annually.
Holter Monitor Room	11.15	120	1 per Cardiology clinic when cardiologist is programmed.
Holter Monitor Equipment Room	9.29	100	1 per Holter Monitor Room.

STAFF AND SUPPORT AREAS			
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Case Manager Office	11.15	120	One per manager (FTE) programmed.
Records Storage Room	9.29	100	One per clinic. Provide an additional 40 nsf if records are not maintained on CD or video format.
EKG Work Area and Records	11.15	120	Minimum. One per clinic, add 10 NSF for each EKG room in excess of one.
Scope Cleaning Work Room	9.29	100	One per transesophageal echo. room.
Pacemaker Equipment Storage	5.57	60	1 per pacemaker room.
Equipment Storage	11.15	120	1 per clinic.
Litter and Wheelchair Storage	5.57	60	One per clinic.

DoD Space Planning Criteria for Health Facilities
Cardiology/Pulmonary Services

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

CARDIOLOGY CLINIC (continued):

<u>CARDIAC CATHETERIZATION (CATH.) LAB</u>	Must have a minimum of one cardiologist FTE projected.		
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PATIENT AREAS			
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Cardiac Cath. Exposure Room	54.72	590	Two rooms when any cardiologist FTE projected.
Cardiac Cath. Control Room	14.30	150	One per exposure room.
Scrub Area	7.43	80	One per exposure room.
Cardiac Cath. ADP Equipment Room	12.54	135	Minimum of one, 1 per every 2 exposure rooms.
Recovery Room	22.30	240	240 minimum(2 beds) Add 120 for each additional cath. exposure room.
Recovery Room Toilet	5.57	60	One per recovery room.
Dedicated Janitor's Closet	5.57	60	One per cath. lab.
Recovery Control Station	5.57	60	One per recovery room.

STAFF AND SUPPORT AREAS			
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Physicians' Workroom	11.15	120	1 per Cardiac Cath. Lab.
Staff Locker Room:			Required due to sterile requirements.
Male:	9.29	100	One per Cath. Lab. See Section 6.1.
Female:	9.29	100	One per Cath. Lab. See Section 6.1.
Film Viewing Room	18.58	200	One per exposure room, 1 room.
Film Storage	9.29	100	One per exposure room, 1 room.
Equipment Prep Room	9.29	100	One per 2 exposure rooms.
Equipment Cleanup / Soiled Utility Room	7.43	80	Minimum one, 1 per two exposure room.
Instrument Room	9.29	100	One per 2 exposure rooms.
Sterile Supply / Clean Work Room	9.29	100	One per cath. lab.

DoD Space Planning Criteria for Health Facilities

Cardiology/Pulmonary Services

PULMONARY CLINIC	Cardiology and pulmonary clinics may be separate clinics at larger facilities. Must have a minimum of one pulmonologist FTE projected. Provide with respiratory therapist FTEs projected.
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FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PULMONARY FUNCTIONS			
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Outpatient Respiration Therapy (Inhalation Cubicles)	13.94	150	Minimum: will accommodate up to two cubicles. See formula in Section 3.16.6. below.
Home Care Coordinator Office	11.15	120	One per respiratory treatment service
Equipment Prep. Cleaning Area	13.94	150	Minimum; plus 10 nsf per treatment cubicle. Maximum: 200. 1 per clinic.
Equip. Storage & Maintenance Area	13.94	150	Minimum; plus 10 nsf per treatment. Cubicle. 1 per clinic.
Gas Cylinder Storage	2.79	30	One per clinic.
Ventilator Storage	9.29	100	Minimum or 10 nsf per ventilator.

PULMONARY FUNCTION LAB			
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Outpatient Pulm. Function Analyzer	11.15	120	One per lab.
Flow Volume Loop	9.29	100	One per lab.
Automated Pulmonary Function	9.29	100	One per lab.
Pulmonary Function Analyzer Room	11.15	120	One per lab. Includes a Body Box.
Blood Gas Analysis Room	9.29	100	One per pulmonary function lab, if a qualified Blood Gas Anal. Lab tech. FTE programmed.
Treadmill Room	23.23	250	One per pulmonary function lab.
Pulmonary Lab. Equipment Storage	9.29	100	Per cubicle. 1 per respiratory treatment area.
Spirometry Studies	9.29	100	one per pulmonary functions lab.

SLEEP STUDIES SUITE			Verify if required.
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Sleep Studies Room	9.29	100	One per pulmonary function lab.
Sleep Studies Monitoring Room	11.15	120	For equipment. One per sleep studies room.
Dedicated patient toilet		varies	One per sleep studies room. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Cardiology/Pulmonary Services

PULMONARY CLINIC (Cont'd)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

BRONCHOSCOPY SUITE			Verify if procedures performed in OR. Do not locate in both areas.
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Bronchoscopy Procedures Room	13.94	150	One per clinic, when pulm. FTE projected.
Recovery Room	11.15	120	One per clinic.
Dedicated Patient Toilet	5.57	60	One per recovery room. See Section 6.1.
Control/Observation Area	5.57	60	One per recovery room.
Scope Wash Room	9.29	100	One per bronchoscopy suite.

TREATMENT AREAS

Toilet with Shower	7.43	80	1 per treadmill room and 1 per stress echo. room.
Dressing Cubicle	4.65	50	Minimum per cubicle. One cubicle per Phonocardio, one per Echocardiography Room, 1 per Treadmill room.

Functions which are required for Residency Education in Cardio/Pulmonary:

The following areas must be programmed if there is a Cardiology or Pulmonary Residency Program. These areas are in addition to those listed under common areas above.

Director of Residency	11.15	120	One per director of a Cardio/Pulmonary Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of a Cardio/Pulmonary Residency Program, if there is a projected FTE secretary position.
Residency Research Technician	11.15	120	One per program, when there is a programmed FTE position.
Coordinator	11.15	120	One per Cardio/Pulmonary Program Coordinator if there is a projected FTE.
Resident's Office Space	11.15	120	Minimum, 60 nsf per projected resident.
Residency Library	22.29	240	One per Cardio/Pulmonary Residency Program.
Conference Room	37.16	400	One per Cardio/Pulmonary Residency Program.
Resident's Exam Room	11.15	120	Two examination rooms for each of the maximum of residents (all types) at any one time, who see patients in the clinic.

DoD Space Planning Criteria for Health Facilities
Cardiology/Pulmonary Services

3.16.6. FORMULAS:

EKG Room Requirements:

EKG Rooms = $\frac{\text{EKG tests/week}}{2 \text{ tests per hour} \times 35 \text{ hours per week}}$

Inhalation Cubicle Requirements:

Cubicles = $\frac{\text{Treatments per week}}{2 \text{ treatments per hour} \times 35 \text{ hour per week}}$

DoD Space Planning Criteria for Health Facilities

Labor & Delivery/Obstetric Unit

4.2.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for labor, delivery services and the obstetric unit of a military hospital. These units provide the facilities and services associated with birthing, the care of newborn infants and their mothers.

4.2.2. DEFINITIONS:

Average Length of Stay (ALOS): The amount of time between arrival and departure of patient.

Birthing Equipment Storage: Numerous items of equipment are used during the birth of an infant. Traditionally, in the LDRP concept, the equipment needed at the time of birth can be shared between two rooms and kept in a common equipment room/alcove. In a traditional LDR concept, an area of the room provides storage for equipment dedicated to that room. However, in both the LDR and LDRP revised concepts, equipment storage is provided in the same manner. Equipment storage for both LDR's and LDRP's is provided in a dedicated enclosed closet for each room. Additionally, there is a requirement for common storage space for equipment on the unit.

Exam/Prep Room: Birthing patients are initially seen and evaluated in an exam/prep (triage/pre-admission) room. This process is to determine if the patient is truly in labor and if there are any complications. The process of exam/prep can result in the patient being sent home (false labor for example), the patient being sent to a room for the labor to progress, or to a cesarean section room (high risk patient or scheduled cesarean section). Exam/prep does not always lead to an immediate admission or release. It may take a couple hours of observation to R/O active labor, fetal or maternal distress before the admission or release to home decision can be made. It is also in this area that admission data is gathered.

High Risk Pregnancy: This term is used to describe the state of a mother prior to delivery. A high-risk pregnancy is one in which additional health concerns are capable of complicating the natural course of a pregnancy. These conditions include an expectant mother who has had a problem pregnancy before, a current obstetrical problem such as: pre-eclampsia or placenta previa, a medical problem such as: diabetes or hypertension, a genetic problem. A woman who has a problem such as these is likely to experience a worsening of that condition as pregnancy progresses. Although pregnancy is a normal, natural state, it represents a stress on a healthy body because of changes in blood volume, hormone balance, mechanical pressures, and other conditions. For programming purposes, the number of "high risk pregnancies" can be projected from a count of those births, which were classified upon discharge into the following DRG's:

- 370 Cesarean Section with CC
- 371 Cesarean Section without CC
- 372 Vaginal Delivery with Complicating Diagnoses
- 375 Vaginal Delivery with OR procedure Except Sterilization and / or D&C

Labor and Delivery Unit: A nursing unit for the care of mothers and babies during labor and delivery, which can include the use of LDRs (labor, delivery, recovery), LDRPs (labor, delivery, recovery, postpartum), and/or obstetric beds.

Labor, Delivery, and Recovery (LDR): A maternity care program which provides labor, delivery, and recovery for a mother in a single room. Rooms must include facilities for care of the infant during delivery and immediately after birth. The use of this concept requires a postpartum or obstetric unit

DoD Space Planning Criteria for Health Facilities

Labor & Delivery/Obstetric Unit

Labor, Delivery, Recovery, and Postpartum (LDRP): A maternity care program which provides labor, delivery, recovery, and postpartum care for mother in a single room. Rooms must include facilities for care of the infant during delivery and after birth. Such rooms also include facilities for mother-baby care.

Low Risk Pregnancy: This term applies to those pregnancies, which are not high risk and generally can be considered those normal deliveries which after the fact are classified into DRG 373, Vaginal Delivery without complicating diagnoses.

Mother-Baby: This is also described as “Rooming In” and “Mother-Infant Couplet Care.” This is when the infants stays in the same bedroom as the mother following delivery and during the infant and mother’s stay in the hospital. Mother and Baby may stay in an LDRP or on an Obstetrical or Postpartum Unit.

Postpartum: This is the period of time following birth.

Obstetric Unit: A postpartum or obstetric unit is the inpatient area of women following health care events associated with pregnancy. This unit may also be used for antepartum, female surgery, and other OB or GYN related patients.

Unit: A unit is an area of patient care which includes a number of patient rooms and all of the support functions necessary to provide care to the patients on that unit. Examples include an obstetric ward (unit), an LDR unit or an LDRP unit. The number of units varies and is provided in the formula paragraph 4.2.6.

4.2.3. POLICIES:

LDRP's will be programmed into all DoD MTF's unless workload exceeds 250 births per month. The only exception will be for renovation project where it is documented that the existing facility will not accommodate LDRP's. LDRP's are recommended for all DoD MTF's unless the workload exceeds 250 births per month. Exceptions for MILCON will be considered when significant complexity of care and staffing issues exist. In addition exceptions will be made for renovations projects where it is documented that the existing facility will not accommodate LDRP's. In these cases, the LDR concept with an obstetric unit will be programmed.

An economic analysis should be accomplished when obstetric services are included in a MILCON project to determine the desired capacity and resources. The analysis may be accomplished with in-house resources or through a commercial contract. This analysis must consider population served and future trends for that population, fertility rates in the population by segments both past and future, obstetric service staffing projections, availability and cost of obstetric services in the geographic area and concepts of care. The analysis must include the Poisson process calculation for determining required number of beds. The analysis may include a simulation evaluation that demonstrates the expected birth volume associated with the number of labor/delivery rooms proposed, given the targeted clinical practices and expected nurse staffing.

When annual deliveries per year are projected to be less than 360 births; special justification of OB services is required. The following factors should be taken discussed as part of the justification: (1) location (2) availability of local OB services (3) readiness/quality of life issues.

Although Public Law (Statute), “Standards Relating to Benefits for Mothers and Newborns” does not apply to DoD facilities, nor to care provided via CHAMPUS and TRICARE, the standards set forth should be followed for planning purposes. These standards state that mothers shall receive a minimum of 48 hours of inpatient care following vaginal delivery and 96 hours following cesarean

DoD Space Planning Criteria for Health Facilities

Labor & Delivery/Obstetric Unit

section, if they so desire. The direction of this legislation is to assure that mothers, not HMO's or third party payers, have control over their minimum length of stay. In most hospitals, including DoD, the mother may elect to be discharged in less than the minimum times stated.

4.2.4. CONSIDERATION OF PROGRAMMING OPTIONS

Concepts of Care:

In DoD facilities, there are currently only two accepted concepts of care for the birthing of infants.

- A. The Labor Delivery Recovery (LDR) Room model.
- B. The Labor Delivery Recovery Postpartum (LDRP) room model.

Renewal/renovation projects can implement LDR's if space allocation/constraints don't allow an LDRP design, or if workload exceeds 250 births per month.

Inpatient obstetrical facility space requirements are a function of (a) birth volume and (b) provider practice patterns at the facility of interest. These items must be analyzed in detail.

- (a) The primary purpose of the birth volume analysis is to forecast the number of mothers who will give birth from the subject hospital beneficiary population during each of the next several (five) years. The analysis of birth volume must consider the current and any projected changes in the beneficiary population at risk for obstetrical services. The population at risk is generally considered to be women between the ages of 15 and 45. The analysis of the beneficiary population must include beneficiary category, single year age group and marital status. The analysis of birth volume must also consider historical and projected changes in fertility of the population at risk. The unit of analysis for the fertility rate analysis must be mothers giving birth as defined by patients discharged from DRG's 370 through 375. The fertility rate information must be beneficiary category and single year age group specific, i.e. 18 year old, 19 year old and etc. Analysis of historical fertility rate data from the catchment area population for a period of not less than three years is necessary. This analysis should include an assessment of seasonality trends in the birth volume data.
- (b) The primary purpose of the provider practice pattern analysis is to translate the birth volume forecast into clinic and hospital workload. There are five key obstetrical practice pattern parameters that have been shown to determine inpatient obstetrical facility resource requirements. These parameters are:
 - (1) Cesarean delivery rate, DRG's 370, 371
 - (2) Cesarean delivery ALOS.
 - (3) Vaginal birth delivery rate (DRG's 372-375).
 - (4) Vaginal birth ALOS (Average Length of Stay).
 - (5) Discharge rate to non-birth related obstetrical patients (as defined by patients discharged from DRG's, 378, 379, 380, 382, 383 and 384, (376, 377 can also be used, if they were not postpartum patients).

At some locations, GYN surgical patients may be collocated with or cared for on this unit. In a women's health model the outpatient OB/GYN clinic may also be located adjacent to this unit with routine antepartum testing completed on the OB unit (due to the expertise of nursing staff and best use of resources).

DoD Space Planning Criteria for Health Facilities

Labor & Delivery/Obstetric Unit

If the concept of operation is to include non-birth related GYN patients on the same ward with postpartum patients, then the following practice patterns must be considered:

- (6) Non-birth related obstetrical patient ALOS.
- (7) Surgical GYN Patients (DRG's 353-369), when these patients are placed on an obstetrics unit.
- (8) Surgical GYN Patients (DRG's 353-369) ALOS when these patient are placed on an obstetrics unit.

NOTE: Consideration must be given to DRG's 376, and 377 Postpartum and Post abortion Diagnoses with (377) or without (376) OR Procedure. A birth may or may not be associated. The number of discharges and the AOL of each must be captured. This is also true for the DRG's 353-369 (diseases & disorders of the female reproductive system, surgical), when these patients are placed in the obstetric unit.

Analyses of these practice pattern parameters from both institutional and an individual provider perspective is necessary. Historical performance data should be compared with normative source data. Guidance from the Chief of Obstetrics at the subject hospital should be provided regarding the target planning values for these five parameters. The target values for these five parameters should be used for inpatient obstetrical facility planning purposes.

The analysis must consider clinical practice patterns, nurse allocation, scheduling, and staffing practices.

For hospitals with less than 3,000 mothers giving birth each year (250 births per month) there is a substantial savings in nursing and support personnel associated with implementation of the LDRP concept of care and a fully cross-trained staff. For very small facilities of less than 1,800 births per year (150 births per month) the support staff savings associated with implementation of LDRP care is on the order of 20 percent.

Staff savings of this magnitude can justify the entire building renovation or construction project cost. The savings cannot be realized using the LDR and postpartum concept of operations. Therefore, the LDRP model is clearly more efficient in terms of support staffing costs than the LDR care concept in hospitals with less than 3,000 births per year.

For inpatient obstetrical facilities with a forecast birth volume of less than 3,000 births per year (250 births per month), as defined by patients discharged from DRG's 370 through 375, the preferred concept of care is LDRP. For facilities with a forecast birth volume greater than 3,000 births per year the preferred concept of care is LDR with a separate postpartum unit. Exceptions to these guidelines will be made on a case-by-case basis following submission of appropriate documentation.

4.2.5. PROGRAM DATA REQUIRED:

What is the model or concept of care that will be used? (LDR, LDRP)

Will "Mother-Baby" care be provided on a 24-hour basis?

Project annual number of births.

Project annual percent of births that are cesarean sections (DRG's 370 & 371)

Projected Average Length of Stay (ALOS) for vaginal birth patients,

Projected Average Length of Stay (ALOS) for cesarean section patients

Project annual number of OB admissions that are for each of the following DRG's:

376 & 377 (separate DRG's 376 & 377 into birth related and non-birth related), 378, 379,

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380, 381, 382, 383 & 384.

Project annual number of Surgical GYN patients when these patients are kept on the obstetric unit. (DRG's 353-369) and associated ALOS for each DRG.

Average occupancy rate for LDR's, based on Poisson process or historical information.

Average occupancy rate for LDRP's, based on Poisson process or historical information.

Projected number of infants on an LDRP unit.

Maximum number of obstetricians who require sleeping space at one time.

Peak FTE's on a shift for Labor & Delivery, and Postpartum areas distributed by sex.

Total number of FTE for Labor & Delivery, and Postpartum areas distributed by sex.

Projected female population in the hospital catchment area of child-bearing age.

Projected fertility rate of population supported.

Will the OB/GYN clinic be collocated with the inpatient obstetrics and will routine antepartum testing be completed on this unit?

Projected number of routine antepartum test?

Will other GYN patients be cared for on this unit?

Diagnostic Related Groups for this section:

353	Pelvic Evisceration, Radical Hysterectomy and Radical Vulvectomy
354	Uterine and Adnexa Procedures for Nonovarian/Adnexal Malignancy with CC
355	Uterine and Adnexa Procedures for Nonovarian/Adnexal Malignancy without CC
356	Female Reproductive System Reconstructive Procedures
357	Female Reproductive System Reconstructive Procedures for Ovarian or Adnexal Malignancy
358	Uterine and Adnexa Procedures for Nonmalignancy with CC
359	Uterine and Adnexa Procedures for Nonmalignancy without CC
360	Vagina, Cervix and Vulva Procedures
361	Laparoscopy and Incisional Tubal Interruption
362	Endoscopic Tubal Interruption
363	D and C, Conization and Radioimplant for Malignancy
364	D and C, Conization Except for Malignancy
365	Other Female Reproductive System OR Procedures
366	Malignancy of Female Reproductive System with CC
367	Malignancy of Female Reproductive System without CC
368	Infections of Female Reproductive System
369	Menstrual and Other Female Reproductive System Disorders
370	Cesarean Section with CC
371	Cesarean Section without CC
372	Vaginal Delivery with Complicating Diagnoses
373	Vaginal Delivery without Complicating Diagnoses
374	Vaginal Delivery with Sterilization and/or D and C
375	Vaginal Delivery with OR Procedure Except Sterilization and/or D and C
376	Postpartum and Post abortion Diagnoses without OR Procedure
377	Postpartum and Post abortion Diagnoses with OR Procedure
378	Ectopic Pregnancy
379	Threatened Abortion
380	Abortion without D and C
381	Abortion with D and C, Aspiration Curettage or Hysterotomy
382	False Labor
383	Other Antepartum Diagnoses with Medical Complications
384	Other Antepartum Diagnoses without Medical Complications

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Labor & Delivery/Obstetric Unit

4.2.6. SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

LDR CONCEPT OF OPERATION			The following provides function(s) which are unique to the LDR concept of operation.
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Labor/Delivery/Recovery (LDR) Room (incl. equip. stor. and circulation areas)	40.41	435	See formula in para. 4.2.7 to determine quantity of rooms.
LDR Toilet	5.57	60	One per each LDR Room

LDRP CONCEPT OF OPERATION			The following provides function(s) which are unique to the LDRP concept of operation.
----------------------------------	--	--	--

Labor/Delivery/Recovery/Postpartum (LDRP) Room (incl. equip. storage and circulation areas)	40.41	435	See formula in para. 4.2.7 to determine quantity of rooms.
LDRP Toilet	5.57	60	One per each LDRP Room.

LDR & LDRP ASSOCIATED FUNCTIONS			The following provides function(s) which support and are common to both the LDR and the LDRP concepts of operation.
--	--	--	--

Control Station	18.58	200	One per Labor & Delivery Unit, increase by 100 nsf if over 2,500 annual births.
Exam/Prep Room	11.15	120	One per each 1,000 projected annual births.
Exam/Prep Room Toilet	5.57	60	One per each Exam/Prep Room.
Early Labor Lounge	22.30	240	One per Labor & Delivery Unit.
Early Labor Room Toilet w/ shower	8.36	90	One per every Early Labor Lounge.
Non Stress Testing (NST) Room	22.30	240	Minimum one per every labor & delivery unit. Add second NST room if workload exceeds 250 births per month.
Toilet	5.57	60	One per Non Stress Testing Room

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Labor & Delivery/Obstetric Unit

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
C-SECTION AREA FUNCTIONS			These are functions which are necessary for any hospital which provides obstetric services. Note that some hospital may provide these functions in the operating suite.
Area Control Station	5.57	60	One per C-Section area, in Recovery.
Cesarean Birth Room	37.16	400	See formula in para. 4.2.7.
Recovery Room	22.30	240	Minimum 2 bed recovery room for one cesarean section room. Add 240 nsf for each additional cesarean section room, i.e. two recovery beds for each cesarean birthing room.
Scrub / Gown Area	3.72	40	One per every two cesarean birth room.
Sterile Supply	9.29	100	One per every four or fraction of four cesarean birth rooms.
Equipment Cleanup / Soiled Utility	7.43	80	One per every four or fraction of four cesarean birth rooms.
Anesthesia Workroom	11.15	120	One per C-Section area.
Anesthesia Storage	3.72	40	One per anesthesia workroom.
Dedicated Janitor's Closet	5.57	60	One per C-Section area. See Section 6.1.
PATIENT/FAMILY AREAS			Supports all Labor and Delivery areas, except OB Unit.
Family Dressing Room	11.15	120	One per labor and delivery unit, dressing booths in this room two at 30 nsf each, place lockers in room, two lockers per C-section room.
Family Waiting Room	11.15	120	Minimum of 120 nsf, 20 nsf per LDR or LDRP.
Family Waiting Room Toilet	5.57	60	One per Family Room.
Family Teaching Room	11.15	120	Minimum of 120 nsf, 20 nsf per LDRP. If LDR concept of operation, then this function should be placed on the obstetric unit.
STAFF AND SUPPORT AREAS			Supports all Labor and Delivery areas, except OB Unit.
Anesthesia Work Room	11.15	120	One per LDR and/or LDRP area.
Anesthesia Storage	3.72	40	One per anesthesia workroom.
	7.43	80	When also supporting 10 or more LDR's and/or LDRP's.
Nourishment Room	11.15	120	One per labor and delivery unit
Medication Preparation	5.57	60	One per labor and delivery unit. May need more for a very large unit (Balboa, Portsmouth, etc)

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Labor & Delivery/Obstetric Unit

STAFF AND SUPPORT AREAS (Continued)			Supports all Labor and Delivery areas, except OB Unit.
Consultation Room	11.15	120	One per labor and delivery unit. May need more for a very large unit.
NCOIC/LCPO/LPO Office	11.15	120	One per Labor and Delivery unit.
Nurse Supervisor Office	11.15	120	One per Labor and Delivery unit.
Physician Charting & Dictation	7.43	80	One per labor and delivery unit.
Conference Room	27.87	300	One per Labor/deliver unit. Add 7 nsf for each FTE on the peak shift above 20.
Equipment Storage for LDRP /LDR Rooms.	5.57	60	Minimum. 15 sf for each LDRP/LDR. In addition to in-room storage.
Clean Supply	16.72	180	One per each 1,000 project annual births.
Soiled Utility	13.94	150	One per labor and delivery unit.
Stretcher and Wheelchair Storage	7.43	80	One per labor and delivery unit.
Janitors' Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.
Female Locker Room	9.29	100	Minimum. Add 7 nsf for each projected female FTE over 10, on all shifts combined.
Female Shower Area	5.57	60	Minimum: provides area for one shower. Increase by one shower for each increment of 15 females on peak shift over 10 FTE's. Add 20 nsf for each additional shower.
Male Locker Room	9.29	100	Minimum. Add 7 nsf for each projected male FTE over 10, on all shifts combined.
Male Shower Area	5.57	60	Minimum: provides area for one shower. Increase by one shower for each increment of 15 males on peak shift over 10 FTE's. Add 20 nsf for each additional shower.
Staff Lounge	9.29	100	Minimum, add 5 nsf for each FTE above ten on duty during the peak shift (normally days).
Staff Toilets (see also Section 6.1)			
Female		varies	One wc @ 30 nsf, for each 15 female FTE's projected per maximum shift, plus one lavatory @ 30 nsf for each 15 female FTE's projected per maximum shift.
Male		varies	One urinal @ 30 nsf for each 40 male FTE's projected per maximum shift plus one wc @ 30 nsf, for each 20 male FTE's projected per maximum shift, plus one lavatory @ 30 nsf for each 20 male FTE's projected per max. shift.
On-Call Sleeping Room	11.15	120	One per projected "on-call" staff member per shift required to sleep in the unit.
On-Call toilet & shower	8.36	90	One per On-Call Sleeping Room

DoD Space Planning Criteria for Health Facilities

Labor & Delivery/Obstetric Unit

Obstetrics Unit: NOTE: This may be a small area in a unit that has solely LDRPs. This unit will also include “other” OB beds.	Recommended Maximum size unit is 23 beds.
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FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT/FAMILY AREAS			
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Private Room with Toilet and Shower (include one lav. In the toilet and one in the patient room)	18.58	200	See formula in para.4.2.6.
Nursing Station	18.58	200	One per obstetric unit
Family Teaching Room. This room should be larger if there is no Level II or III nursery, which has a large classroom.	11.15	120	Minimum of 120 nsf, 20 nsf per LDR. If LDRP concept of operation, then this function should be placed on the LDRP unit.
Treatment Room	11.15	150	One per obstetric unit. Add a second treatment room if the obstetric unit is collocated with OB/GYN clinic and routine antepartum testing is completed on the obstetric unit.
Public Toilets (male and female)	5.57	60	One per obstetric unit.
Patient Lounge	18.58	200	One per obstetric unit.

STAFF AND SUPPORT AREAS			
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Medication Preparation	7.43	80	One per obstetric unit.
Nurse Supervisor's Office	11.15	120	One per obstetrics unit.
NCOIC/LCPO/LPO Office	11.15	120	One per obstetric unit.
Physicians' Charting / Dictation	3.72	40	One per obstetric unit.
Consultation Room	11.15	120	One per obstetric unit.
Clinical Specialist/Lactation Support Office	11.15	120	One per obstetric unit.
Equipment Storage	5.57	60	Minimum. 10 nsf of storage per each obstetric room.
Nourishment Room	11.15	120	One per obstetric unit.
Clean Supply	14.86	160	One per obstetric unit.
Soiled Utility	11.15	120	One per obstetric unit.
Stretcher and Wheelchair Storage	5.57	60	One per obstetric unit.
Staff Toilets (male and female)	5.57	60	One per obstetric unit.
Staff Locker			Consolidate Locker requirements with Labor and Delivery Unit if collocated with Labor and Delivery area. See criteria above.

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Labor & Delivery/Obstetric Unit

4.2.7. FORMULAS:

Discussion. The vast majority of patients arriving at a hospital in need of obstetrical care are not scheduled in advance. Rather, these patients arrive in an unscheduled or random way (scheduled cesarean deliveries and scheduled induction patients are exceptions that do not arrive at the hospital randomly). A great deal of work has been done on the mathematics of random processes. Queuing theory, for example, is a branch of mathematics that studies people waiting in lines or queues. The mathematical model, the Poisson process, has been used to accurately describe many random processes. The Poisson process has been shown to accurately describe obstetrical facility occupancy in a number of studies dating from 1960.

There are two required inputs to the Poisson process, the arrival rate (admission rate) and the service time (average length of stay - ALOS). The Poisson process assumes that admissions are random events with respect to day of week and time of day. If a significant proportion of admissions are scheduled, use of the Poisson process will over estimate the requirements for rooms and beds. Therefore, the Poisson process should be considered a conservative estimate (overestimate) of room and bed needs.

The Poisson process calculates the occupancy rate and probability that a bed will not be available (patient turn-aways). The calculation of this probability explicitly illustrates the trade-off between desired occupancy rate and the probability that a bed will not be available. There is no consensus on the “right” level that demand exceeds the facility capacity (percent of patient turn-aways). Estimates of the appropriate demand level for planning purposes range from 90 to 99.9 percent. The determination of the trade-off between occupancy rate and turn-away probability is a responsibility of the facility planners. The ability of the facility to accommodate patients in other rooms in the obstetrical unit or in other hospital units for short periods or to limit the number of scheduled procedures during periods of peak demand are important considerations when making this decision.

Normative formulas are provided below for the purpose of both quick and comparative program development. The Poisson process will be used to provide the accepted quantity solutions. An example Poisson distribution example is provided following the formulas. An interactive, electronic spreadsheet which graphs this distribution is available on the website <http://www.tricare.osd.mil/ebc/mm>.

Common Planning Factors: Actual experience rates are more desirable and should be obtained from the historic workload for the facility. The following factors are provided for comparative purposes.

Minimum mother's ALOS for normal vaginal birth = 2.0 days
 Minimum mother's ALOS for cesarean section birth = 4.0 days
 Infant's ALOS for a normal vaginal birth = 1.5 days
 Infant's ALOS for Cesarean Birth = 3.5 days
 Cesarean Birthrate is 20% nationally

DoD Space Planning Criteria for Health Facilities

Labor & Delivery/Obstetric Unit

Formula for LDR's:

$$\text{Total number of LDRs} = \frac{\text{Projected LDR Events Number} \times \text{ALOS}}{365 \times \text{desired percentage occupancy}}$$

Note: A rule of thumb is that LDR are provided at a ratio of one per 350 non-cesarean births. The above formula is more precise.

Cesarean Section Birth are DRG's 370 and 371.

Normal Deliveries are DRG 372, 373, 374 and 375.

Note: DRG 375 may require additional review since it is described as a vaginal delivery with OR procedure except sterilization and/or D&C.

- Step 1. Determine the projected number of LDR events, which equals the number of vaginal births (project the annual number of births minus the annual projected number of cesarean births).
- Step 2: Add to this the number of cesarean births less the number of "scheduled cesarean births." The purpose of adding the unscheduled C-sections is to provide LDR space for the woman who goes to an LDR room to attempt vaginal delivery and after some period of labor time, is taken to an operating room for an emergency cesarean section
- Step 3. Project the Average Length of Stay in an LDR for a normal vaginal birth. This number on average is .5 days or 12 hours (6-hrs. labor, 2-hrs. delivery, 3-hrs. recovery and 1 hr. room cleanup). A description of how to determine ALOS by DRG is provided at the end of this section. Step 4. Determine the desired percentage of occupancy in the LDR's. The most widely used number in the private sector is 70% or .70.
- Step 4. Insert the numbers attained in steps one through three into the formula and calculate the number of LDR's required.

Formula for LDRP's:

$$\text{Total number of LDRP's} = \frac{\text{Projected LDRP Events} \times \text{ALOS}}{365 \times \text{desired percentage occupancy}}$$

Note: There is no difference in the LDR and the LDRP formulas. The results are different because of different variables, most notably the ALOS (average length of stay).

- Step 1. Determine the projected number of LDRP events, which equals the number of births
- Step 2. Project the Average Length of Stay in an LDRP for a normal vaginal birth. This number on average is 2 days. A description of how to determine ALOS by DRG is provided at the end of this section.
- Step 3. Determine the desired percentage of occupancy in the LDRP unit. The most widely used number in the private sector is 70% or .70.
- Step 4. Insert the numbers attained in steps one through three into the formula and calculate the number of LDRP's required.

DoD Space Planning Criteria for Health Facilities

Labor & Delivery/Obstetric Unit

Formula for Cesarean Room:

$$\text{Total number of Cesarean Rooms} = \frac{\text{Projected \# of Annual Cesarean Deliveries}}{500 \text{ deliveries per room}}$$

- Step 1. Project the number of annual cesarean deliveries. A rule of thumb is that 20% of all deliveries will be cesarean, however there is considerable variation between hospitals.
- Step 2. Divide the projected number of cesarean deliveries by 500 to determine the total number of cesarean rooms required. Always round up to the next highest number. The minimum number of rooms must be one.

Note: In smaller facilities, the Cesarean Room(s) may be located in the Surgical Suite, if it is near the Obstetric Unit.

$$\text{Number of Postpartum Beds} = \frac{\text{Projected number of Annual Births} \times \text{Project ALOS}}{365 \times \text{Planned Occupancy Rate}}$$

Note: Postpartum beds are not required in a unit with a solely LDRP service. An obstetrics unit may also be provided in a hospital with a very large OB service (more than 250 births per month). In this case, a special study is needed using a Poisson process to determine beds needed. This formula will need to be calculated twice: once for projected low-risk births using the lower ALOS and then again for the projected number of high-risk births using the high risk ALOS.

- Step 1. Determine the projected number of annual births, low risk and then high risk. (see definitions for DRG's in each category.)
- Step 2. Project the Average Length of Stay in the obstetric unit. This number on average is 1.5 days for low risk patients and 3.5 days for high-risk patients. A description of how to determine ALOS by DRG is provided at the end of this section.
- Step 3. Determine the desired percentage of occupancy in the obstetric unit. The most widely used number in the private sector is 70% or .70.
- Step 4. Insert the numbers attained in steps one through three into the formula and calculate the number of obstetric beds required.
- Step 5. Calculate the formula twice, once for the projected number of low risk deliveries and once for the projected number of high-risk patients. Add the resulting number of beds from each calculation to determine the total number of obstetric beds required.

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Labor & Delivery/Obstetric Unit

Number of other OB/GYN beds required = $\frac{\text{projected number of patients in each DRG} \times \text{ALOS for the DRG}}{365}$

Note: Other OB beds are for DRG's 376, 377 (except those following delivery), 378, 379, 380, 381, 382, 383 & 384. What about all the GYN DRG's (353-369)?

Step 1. Determine the projected number of admissions from the above DRG's.
 Step 2. Project the Average Length of Stay in the obstetric unit for each DRG. A description of how to determine ALOS by DRG is provided at the end of this section.

Step 3. Insert the paired numbers (patients by DRG and ALOS by DRG) attained in steps one and two into the formula and calculate the number of postpartum beds required for each DRG.

Step 4. Calculate the formula nine times, once for each DRG. Add the resulting number of beds from each calculation to determine the total number of other OB beds required.

Number of Units (LDR, LDRP or Obstetric Unit).

Matrix shows the number of units based on the numbers of patient rooms or beds.

Number of Units	1	2	3	4	5
Obstetric	< 23	23-44	45-66	67-88	89-110
LDR	< 13	13-24	25-36	37-48	49-60
LDRP	< 19	19-36	37-54	55-72	73-90

Average Length of Stay (ALOS) is available through at least two sources.

Analysts with access to Standard Inpatient Data Records (SIDRs), the biometric records describing an individual disposition, can sum bed days by DRG and divide by dispositions. SIDRs are available on the IBM mainframe computer at Ft. Detrick in the MHS Data Repository (MDR) files and are based on SIDRs generated at individual MTF's.

Analysts with access to the All Region Server (ARS) Bridge can view individual SIDR records there and using the Business Objects software intrinsic to the Bridge, can calculate ALOS by DRG. As of January 2001, the Bridge has been in a developmental mode with limited access but is moving to a production format with greatly increased access, including authorization for at least one analyst per MTF.

Both of the above methods calculate ALOS "on the fly" rather than accessing a pre-calculated value; thus they can be developed by DRG or by any other grouping, e.g. by MEPR code.

A third option providing less detail is calculation through the MEPRS Executive Query System (MEQS). MEQS is a Business Objects based system containing expense and workload data for MTF's according to categories of interest for expense/accounting rather than workload purposes. Using occupied bed day and disposition data available here, one could calculate ALOS by MEPR code or site. ALOS by DRG could not be calculated using MEQS data.

DoD Space Planning Criteria for Health Facilities

Nursery

4.3.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for nurseries of a military hospital. These units provide the facilities and services associated with the care of newborn infants.

Levels of Newborn Care: The following are levels of newborn care, which denote the service provided in a hospital:

- Level I: Nurseries that provide routine services for normal newborns without complications and provide minimal resuscitative services. Nurseries, which typically provide this level of service, are often referred to in literature as: holding nursery, full-term nursery or newborn nursery.
- Level II: Nurseries that provide services for both the routine newborns and infants who require minimal physiological monitoring and/or supplemental oxygen. May also include premature infants who are feeding and growing. Nurseries, which typically provide this level of service, are often referred to in literature as: transition nursery, continuing care nursery, special care nursery or intermediate care nursery.
- Level III: Nurseries that provide services for management of severely ill infants who require constant nursing and continuous cardiopulmonary monitoring. These infants are often on life support (i.e. ventilators, IV blood pressure support and invasive monitoring). Nurseries that typically provide this level of service are often referred to in literature as: Neonatal Intensive Care Unit (NICU) or Intensive Care Nursery (ICN)

Note: The area per bassinet increases with each level of care.

4.3.2. DEFINITIONS:

Average Length of Stay (ALOS): The amount of time between arrival and departure of patient.

Holding Nursery (Level I): The holding nursery is required where Mother-Baby care is being delivered. The infant would normally stay in the room with its mother. A small “holding nursery” is located adjacent to the nurses’ station on the unit(s) to accommodate well infants who need to be removed from the mother’s room.. The holding nursery will be located on the Obstetric Unit when the LDR concept is used, and on the Labor and Delivery Unit when the LDRP concept is programmed

Isolation Room: This is a room for the treatment of infectious infants. The infant placed in this area has an infectious disease and must not be placed in an area with other infants. In a hospital that provides only Level I nursery care, this area may also serves as the “transition area.”

Mother-Baby: This is also described as “Rooming In” and “Mother-Infant Couplet Care.” This is when the infant stays in the same bedroom as the mother following delivery and during the infant and mother’s stay in the hospital.

Neonatal Intensive Care Unit (NICU) (Level III): This nursery provides the highest (most comprehensive) level of care to newborn infants. This unit is essential for a hospital to be considered a “Level III” facility. Infants, which receive care in such a nursery, may be either born in this hospital or may have been transferred to this hospital from another hospital (typically a Level I or II facility).

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Nursery

Transition Nursery or Area (Level II): Most infants born in LDR or LDRP rooms will “transition” (pass through the critical four-hour period following birth where intensive observation is needed) in the LDR or LDRP room with the mother during her recovery period. A space is required for potentially sick infants who need special observation or medical intervention following birth. For hospitals providing only Level I nursery care, this Level II space is provided in the Holding Nursery when LDRPs are programmed. In a hospital providing only Level I nursery care, using the LDR concept, the transition care may be provided in the isolation nursery room. For those hospitals providing Level II or III care, transition care will be provided in either nursery. No extra space is required for transition care.

4.3.3. POLICIES:

An economic analysis should be accomplished when nursery services of Level II or III are included in a MILCON project to determine the desired capacity and resources. Such analysis may be accomplished with in-house resources or through a commercial contract. This analysis must consider: population served and future trends for that population, fertility rates in the population by segments both past and future, obstetric service staffing projections, availability and cost of nursery services in the geographic area and concepts of care. For Level III services, the analysis must include the Poisson process calculation for determining required number of bassinets. The analysis may include a simulation evaluation, which includes projected occupancy over time, to justify and display the risk associated with the number of bassinets proposed.

4.3.4. PROGRAM DATA REQUIRED.

Note: There is a linkage between Nursery Services in a hospital and Labor & Delivery. In almost all cases, a Level III nursery service will be found in a hospital with a high number of deliveries. The higher the number of deliveries, the more likely that there will be newborns in need of Level III care. In Level I nursery facilities, almost all of the infants in the hospital will have been born in that hospital. In hospitals with higher levels of care (II & III), infants that are not born in the hospital will be transferred into that hospital from other hospitals (Level I to Level II & III, and Level II to Level III).

What will the level of care be for nursery services in this hospital? (I, II or III)
 What is the model or concept of care that will be used? (LDR or LDRP)
 Project annual number of births.
 Project annual percent of births that are cesarean sections.
 Projected annual number of infant admissions (i.e. infants transferred into the MTF or discharge and later admitted) (Level II & III hospitals)
 Projected Average Length of Stay (ALOS) for vaginal birth infants.
 Projected Average Length of Stay (ALOS) for cesarean section infants.
 Maximum number of pediatricians who require sleeping space at one time.
 Peak FTE's on a shift for Nursery areas distributed by sex.
 Total number of FTE for Nursery areas distributed by sex.
 Projected annual number of infants requiring intensive care (i.e. admissions to the NICU).
 Project average length of stay for an infant in intensive care.
 Project number of sick infants from normal births.
 Projected number of infectious or isolation cases annually in the NICU.

DoD Space Planning Criteria for Health Facilities

Nursery

4.3.5. SPACE CRITERIA:

NURSERIES:			
FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Level I (Holding Nursery)			Locate with the postpartum mothers.
Holding Nursery Area		varies	One per obstetric unit or LDRP unit, one bassinet per every 10 LDR/LDRP Rooms or 10 Post Partum beds, minimum of 80 nsf, 55 nsf per bassinet not to exceed 16. See formula in para. 4.2.6. Minimum clear area per bassinet: 24 nsf for level I.
Holding Nursery Work	9.29	100	One per Holding Nursery.
Isolation Nursery Room	13.94	150	One airborne infection isolation room is required in or near the nurseries.
Isolation Ante Room	5.85	60	One per Isolation room.
Level II (Special Care Nursery)			For Hospitals providing Level II care.
Nursery Reception / Control Area	11.15	120	Central control point for all visitors and staff who enter and depart area where infants are housed, i.e. all nurseries combined. If nurseries are physically separate, then add additional reception area for each separate nursery area.
Nursery Ante Room (Continuing Care)	5.57	60	A minimum of one for all nursery units. Typically provide one at the highest level of care. Enter Nursery Area via this room with scrub facilities and observation. Not required if there is an ante room for a Level III nursery.
Nursery Area (Continuing Care)		varies	Provide 105 nsf per bassinet (provide a minimum clear area of 50 nsf). Provide not less than one lavatory per every four bassinets. Every bassinet must be within 20 feet of a lavatory. No nursery may exceed 16 bassinets. See formula in para. 4.2.6.

DoD Space Planning Criteria for Health Facilities

Nursery

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Level III Neonatal Intensive Care Unit (NICU)			Required in hospitals, which provide Level III care.
Nursery Reception / Control Area	11.15	120	Central control point for all visitors and staff who enter and depart area where infants are housed, i.e. all nurseries combined. If nurseries are physically separate, then add additional reception area for each separate nursery area.
Nursery Ante Room	5.57	60	A minimum of one for all nursery units. Typically provide one at the highest level of care. Enter Nursery Area via this room with scrub facilities and observation.
Nursery Area (NICU)		varies	Provide 180 nsf per bassinet (provide a minimum clear area of 120 nsf per bassinet). Provide not less than one lavatory per every four bassinets. Every bassinet must be within 20 feet of a lavatory. No nursery may exceed 16 bassinets. See formula in para. 4.2.6.
Nursery Support Areas (Levels II & III)			Supports all nurseries except Level I
Nurses' Station	18.58	200	One per nursery area.
Procedures Room	13.94	150	One per nursery area.
Isolation Nursery Room	13.94	150	Minimum of one airborne infection isolation room is required in or near the nursery. Maximum number of rooms programmed must be based on the maximum number of infected infants in the nursery for a period on not less than ten days.
Isolation Ante Room	5.85	60	One per isolation room.
Parents Teaching Room / Lounge	16.72	180	One per nursery service.
Lactation Support & Breast Pump Rm.	11.15	120	One per nursery service.
NCOIC/LCPO/LPO Office	11.15	120	One per nursery area.
Nurse Supervisor Office	11.15	120	One per labor and nursery area.
Charting Area	5.7	60	One per nursery area.
Storage	8.36	90	Minimum. One per nursery area. Calculate 18 nsf per bassinet if more than five bassinets programmed.
Clean Utility Room	13.94	150	One per nursery area.
X-ray Alcove	3.72	40	One per dedicated mobile X-ray unit.
Parent Sleeping Room w/ bathroom	5.57	300	One per every 16 bassinets or fraction of.

DoD Space Planning Criteria for Health Facilities

Nursery

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Laboratory	11.15	120	One per Nursery Services when laboratory technician dedicated to Nursery Services.
Developmental Therapy Room	11.15	120	One per nursery services when development. therapist FTE dedicated to nursery.
Social Workers Office	13.01	140	One per Social Worker FTE dedicated to Nursery Services
Nursery Staff Support Area: (Level II & III)			Supports all Nursery areas other than Level I
On-call Sleeping Room with Toilet & Shower	18.58	200	One per projected on-call clinical staff that must stay in the hospital for periods, which exceed 18 hours.
Staff and Support Areas			
Staff Lockers, Lounges and Toilets			See also Section 6.1
Female Locker Room	9.29	100	Minimum, add 7 nsf for each project female FTE in Nursery Services over 10, on all shifts.
Female Shower Area	5.57	60	Minimum: provides area for one shower. Increase by one shower for each increment of 15 females on peak shift over 10 FTE's. Add 20 nsf for each additional shower.
Male Locker Room	9.29	100	Minimum, add 7 nsf for every project male FTE in Nursery Services over 10, on all shifts.
Male Shower Area	5.57	60	Minimum: provides area for one shower. Increase by one shower for each increment of 15 males on peak shift over 10 FTE's. Add 20 nsf for each additional shower.
Staff Lounge	9.29	100	Minimum, add 5 nsf for every projected FTE on peak shift in Nursery Service over ten. Separate lounges may be provided for each nursery area and the postpartum unit when total FTE's in area are ten or greater.
Staff Toilets (see also Section 6.1)			
Female		varies	One wc @ 30 nsf, for each 15 female FTE's projected per maximum shift, plus one lavatory @ 30 nsf for each 15 female FTE's projected per maximum shift.
Male		varies	One urinal @ 30 nsf for each 40 male FTE's projected per maximum shift plus one wc @ 30 nsf, for each 20 male FTE's projected per maximum shift, plus one lavatory @ 30 nsf for each 20 male FTE's projected per max. shift.

DoD Space Planning Criteria for Health Facilities

Nursery

4.3.6. FORMULAS:

Normative formulas are provided below for the purpose of both quick and comparative program development. The Poisson process will be used to provide the accepted quantity solutions. An example Poisson distribution example is provided following the formulas. An interactive, electronic spreadsheet, which graphs this distribution, is available on the website: <http://www.tricare.osd.mil/ebc/rm>.

Common Planning Factors: Actual experience rates are more desirable and should be obtained from the historic workload for the facility. The following factors are provided for comparative purposes.

Infant's ALOS (Average Length of Stay) for a normal vaginal birth (DRG 391) = 1.5 days. For more information in how to obtain ALOS information, see Labor & Delivery/Obstetrics Units Section 4.2.6 Formulas, the end of the section.

Infant's ALOS for Cesarean birth = 3.5 days Cesarean birthrate is 20% nationally

Formulas for:

Level I, Holding Nursery **Total Number of Bassinets** = Projected number of infants on the unit
X 10%

Level II, Continuing Care Bassinets Required =

(Projected annual number of sick infant births + sick infant admissions or transfers into the hospital) X ALOS
365 X Projected Occupancy Rate
PLUS
Projected annual number of cesarean section births in the hospital X 0.167
365 X Projected Occupancy Rate

- Step 1. Determine the projected number of annual sick infant births and admissions (annual admission to continuing care nursery, not to NICU).
- Step 2. Project the Average Length of Stay (ALOS) in the Continuing Care nursery unit. For more information in how to obtain ALOS information, see Labor & Delivery/Obstetrics Units Section 4.2.6 Formulas, the end of the section. Step 3. Determine the desired percentage of occupancy in the continuing care nursery. The most widely used number in the private sector is 70% or .70.
- Step 4. Project the annual number of cesarean section births in the hospital and multiply this by 0.167 (0.167 is the ALOS for a cesarean section infant prior to being returned to its mother in a LDRP or in Postpartum).
- Step 5. Plug the appropriate numbers into the formulae above and calculate. Step 4. Insert the numbers attained in steps one through three into the formula and calculate the number of bassinets required.

DoD Space Planning Criteria for Health Facilities

Nursery

Level III, NICU Bassinets Required = $\frac{\text{Projected annual \# of admission to the NICU} \times \text{ALOS}}{365 \times \text{desired percentage occupancy}}$

Note: This calculation includes the isolation bassinets.

Step 1. Determine the projected number of admissions to the NICU.

Step 2. Project the Average Length of Stay in the NICU.

Step 3. Determine the desired percentage of occupancy for the NICU.

Step 4. Insert the numbers attained in steps one through three into the formula and calculate the number of NICU bassinets required.

Isolation Rooms = % of nursery admissions requiring isolation X 100 X total bassinets required.

Step 1. Project the percent of admissions, based on historic experience, that require isolation.

Step 2. From the formula for each level of bassinets required, obtain the total number of bassinets required.

Step 3. Insert the appropriate numbers into the formula and calculate the number of Isolation Rooms Required.

Step 4. Subtract the number of isolation rooms required from each level of nursery care provided, to determine final number of bassinets in each level nursery.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

4.4.1. PURPOSE AND SCOPE:

Surgery (Inpatient and Ambulatory):

This document sets forth the space planning criteria for Inpatient and Ambulatory Surgical Services. Every attempt should be made to co-locate these Services in order to share staff, support and mechanical spaces.

This Section does not pertain to Intensive Care space planning. Intensive Care planning is found in the Section 4.1, Nursing Units, of this manual. Also, this Section does not pertain to Specialty Surgical Clinics, which are in Section 3.11, Specialty Surgical Clinics, of this manual.

4.4.2. DEFINITIONS:

Ambulatory Operative Procedure - A surgical procedure which does not require complicated anesthesia or post-operative care as defined by the facility, and can be performed on a patient that will remain in a medical facility for less than 24 hours.

Average Time Per Procedure - The total average time to perform all of the following activities: room set-up, anesthesia induction, surgery and room cleanup.

General Operating Room - An operating room designed and equipped to perform a wide variety of operative procedures. This includes endoscopic surgery, which is defined as therapeutic surgical procedures using endoscopic equipment and requiring anesthesia support.

Infection Control Risk Assessment (ICRA) - An ICRA is a determination of the potential risk of transmission of various agents in the facility. See section 5.1 of *Guidelines for Design and Construction of Hospital and Health Care Facilities* of the AIA.

Inpatient Operative Procedure - A surgical procedure performed on a patient who must remain in the medical facility for a greater than or equal to 24 hours.

Operating Room Control (or nursing station)- The Operating Room Control is the area within the surgical suite for clinical staff to supervise the Operating Rooms.

Patient Holding Area / Patient Preparation Cubicle - adjacent to OR's where patient can be held, prepared for surgery, have IV's started, and be placed on cardiac monitor.

Post Anesthesia Care Unit (PACU) – The area where patients who have received anesthesia for a surgical procedure are closely monitored as they recover from that event for Phase I and Phase II. Phase I PACU recovery is typically associated with general anesthesia and the period immediately following surgery. Phase II is an area where outpatients are closely monitored after they have transferred from Phase I, or after surgery not involving general, spinal or epidural anesthesia. This area includes a combination of stretchers and chairs, nourishment room and patient toilets. Patients stay in this area until they are ready for discharge.

Post Anesthesia Care Unit (PACU) Control (or nursing station) - is the location to monitor patients in PACU.

Pre-op Control (or nursing station) - is where patients are monitored preoperatively.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

Reception - The main entry into either anesthesia/pre-op area or the surgical suite, depending the design of the facility. This is the meeting and greeting, scheduling and entry location for the public (patients and family).

Restricted Area - This area includes operating and procedure rooms, the clean core, and scrub sink areas. Surgical attire and hair coverings are required. Masks are required where open sterile supplies or scrubbed persons may be located.

Semi-restricted Area - This area includes the peripheral support areas of the surgical suite and has storage areas for clean and sterile supplies, work areas for storage and processing of instruments, and corridors leading to the restricted areas of the surgical suite. Traffic in this area is limited to authorized personnel and patients. Personnel are required to wear surgical attire and cover all head and facial hair.

Special Operating Room - An operating room designed to perform a specific type of operative procedure such as orthopedic surgery, thoracic surgery, transplant or neurosurgery.

Sterile/clean core: In the restricted area of the operating suite. This acts as a service area between two or more operating rooms. This is where warming cabinets and sterile supplies used in the operating rooms are kept. This area must not provide for cross traffic of staff and supplies from the decontaminated/soiled areas to the sterile/clean areas.

Surgery Students – Students such as nurse anesthetist students, operating room technician students, or operating room nurse students. Small workspaces for these types of students (if present) need separate areas.

Surgical Suites - Includes space for the following functional areas: operating rooms, anesthesia, administration, support activities and staff facilities.

Surgical Suites and Levels of Care - *(From the Guidelines for Design and Construction of Hospitals and Health Care Facilities, AIA)* The size of the surgical procedure rooms is dependent on the level of care to be provided. The level of care as defined by the American College of Surgeons are as follows:

Class A: Provides for minor surgical procedures performed under topical, local, or regional anesthesia without pre-operative sedation. Excluded are intravenous, spinal, and epidural routes; these methods are appropriate for Class B and Class C facilities.

Class B: Provides for minor surgical procedures performed in conjunction with oral, parenteral, or intravenous sedation or under analgesic or dissociative drugs.

Class C: Provides for major surgical procedures that require general or regional block anesthesia and support of vital bodily functions.

Unrestricted Area - This area includes a reception established to monitor the entrance of patients, personnel, and materials.

DoD Space Planning Criteria for Health Facilities Surgery (Inpatient and Ambulatory)

4.4.3. POLICIES:

Suite Size and Composition - Any medical facility authorized a surgical suite will have a **minimum of two operating rooms** regardless of workload or utilization rate. The surgical suite shall be divided into three designated areas - unrestricted, semi restricted, and restricted -- that are defined by the physical activities performed in each area.

The number of **General Operating Rooms** programmed for DoD Medical Facilities will be sufficient to provide a 75% utilization rate during the normal duty day. Include all endoscopic procedures to be performed in the surgical suites. Endoscopic surgery is defined as therapeutic surgical procedures using endoscopic equipment and requiring anesthesia support.

Patients will be counseled by an anesthesiologist or anesthetist prior to surgery. On the day of surgery, ambulatory patients will report to a pre surgery holding area. Surgery patients will be recovered in two phases. Phase I recovery will occur in the PACU and is typically associated with general anesthesia, spinal and epidural anesthesia, and the period immediately following surgery. Phase II will occur in PACU.

Residents - While surgical residents spend a considerable amount of time in the surgical suite, space for their offices and training is provided in their separate surgical clinics. Anesthesia residents' offices and training support space is provided in the area of the operating rooms, when an anesthesia residency program is present.

Staff Support - Lockers. Provide lockers to accommodate all surgical personnel (i.e. anesthesia, recovery, MD's, consultants, admin, support staff). Minimum = 2 locker rooms (one male/one female). See also Section 6.1.

Lounge / Conference Rooms - Minimum of one lounge in Surgical Suite and one in Post Anesthesia Care Unit. Provide a conference room if staff exceeds 10. See Section 6.1 for correct sizing. Locate staff lounge in a semi-restricted area and conference room in either a semi or non-restricted area.

4.4.4. PROGRAM DATA REQUIRED:

4.4.4.1. General Operating Rooms

- Programmed number of surgical procedures per day. Include endoscopic procedures performed in the surgical suite (outside of a clinic). Do not include Cardio/Neuro/Cysto/Ortho workload.
- Average time per surgical procedure.

Determine if all or any of the current workload in the following clinics will be accomplished in the surgical suite in the future or if current surgical suit workload will be accomplished in clinics in a future facility: Dental, OB-GYN, General Surgery, Ophthalmology, ENT, Plastic Surgery. If it is projected that this workload will be accomplished in surgical suite, then include those procedures, if it will be accomplished in a clinic, then exclude that workload.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

4.4.4.2. Special Operating Rooms

- Projected number of Neuro. surgical procedures per day
- Average time per Neuro. surgical procedure

- Projected number of Cardio surgical procedures per day
- Average time per Cardio surgical procedure

- Projected number of Ortho surgical procedures per day
- Average time per Ortho surgical procedure

- Projected number of Cysto. surgical procedures per day
- Average time per Cysto. surgical procedure

4.4.4.3. Miscellaneous

- Number of heart lung machines (only required if open heart surgery mission).
- Number of radiographic systems authorized?
- Number of fluoroscopy systems authorized?
- Number of “on-call” personnel who must be resident on 24-hour shifts.

4.4.4.4. Staffing numbers:

- Providers (Surgery Skills)
 - Administrative staff
 - Receptionist
 - Secretary
 - Instructors
 - Anesthesiologists (MDs)
 - Anesthesiology residents
 - Nurse Anesthetists
 - Student Nurse Anesthetists
 - Operating Room Nurses
 - Operating Room Nurse Students
 - Surgical Technicians
 - Surgical Technician Students
 - Housekeepers
- Is there a Residency Research Technician assigned?

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

4.4.5. SPACE CRITERIA:

A. Surgical Services

Every attempt should be made to co-locate Inpatient and Ambulatory Surgical Services. Co-location offers the ability to transfer staff according to workload between the two Surgical Services and decreases support space requirements. Support space includes anesthesiology office space, post anesthesia recovery, staff and public facilities, mechanical spaces, etc.

Section 4.4 has not been divided into Inpatient and Ambulatory Surgical Services. In the cases of a renovation project where co-location is not feasible or the case of an Ambulatory Surgical Services in a stand alone clinic, the same criteria should be applied as is presented in this section. The programmer must pay particular attention to the comments section of the criteria.

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>Anesthesia Counseling Area:</u>			In small facilities with 2 ORs the area may be combined with the PACU area.
Patient Reception	16.72	180	This space is for patient control.
Waiting Area	11.89	128	Per OR (16 NSF per seat, 4 seats per OR). Provide area for infectious patient in accordance with the ICRA.
Public Toilets, Single Occupancy	5.57	60	See Section 6.1. If this area supports more than 4 OR's, then provide separate male and female single occupancy toilets.
Interview Room	9.29	100	Minimum. One per every two ORs.
EKG Room	11.15	120	One per every four ORs. Confirm that this service is part of the Surgical Suites' concept of operation.
Laboratory Drawing Area	9.29	100	Minimum. Add an additional 20 nsf for each OR above four. Confirm that this service is part of the Surgical Suites' concept of operation.
<u>Family Waiting Area:</u>			
Family Waiting Room	11.15	120	Minimum area for 2 ORs. Add 40 nsf for each OR above two.
Vending Area	3.72	40	Provide one such area when there are four or more operating rooms.
Family Counseling Room	11.15	120	Minimum. Add a second room if more that four ORs and a third room if more than 8 ORs.
Family Toilet (single occupancy)	5.57	60	One per family waiting area. Provide separate male and female toilets if waiting area supports more than 4 ORs.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>Pre-Op/Patient Holding:</u>			Ambulatory patients report to this area to change and then wait in the patient holding room. Provide additional space for infectious patients in accordance with the ICRA.
Patient Holding Room	11.15	120	Minimum area for 2 ORs. Add 40 nsf for each OR greater than two.
Patient Prep./Induction	33.45	360	Minimum. 1.5 stations per OR. Each station is 120 nsf. This area may be combined with the recovery area. It must be under visual control of the nursing staff.
Mediprep Alcove	3.71	40	Minimum. One per patient prep./induction area.
Patient Changing Rooms:			For ambulatory patients only.
Female Changing Room	7.43	80	Minimum for two ORs. Add 60 nsf for each 2 ORs above 2.
Changing Room Toilet (Female)	5.57	60	One per Female Changing Room.
Male Changing Room	7.43	80	Minimum for two ORs. Add 60 nsf for each 2 ORs above 2.
Changing Room Toilet (Male)	5.57	60	One per Male Changing Room.
Clean Supply/Linen	5.57	60	Minimum for two ORs. Add 10 nsf of each OR above 2.
Soiled Utility	9.29	100	Per pre-surgery patient holding area.
<u>Surgical Suite:</u>			
General Surgery Operating Room	45.06	485	See Section 4.4.6. Inpatient or Outpatient.
Cystoscopic Operating Room	45.06	485	Same size as general operating room; special equipment required. Inpatient facility only.
Special Operating Rooms:			
Neuro. Operating Room	62.80	675	See Section 4.4.6. Inpatient facility only.
Neurosurgical equipment storage	13.94	150	1 per Neuro. OR. (Inpatient Services only).
Neurosurgical Monitoring	9.29	100	1 per 2 Neuro. ORs (Inpatient Services only).
Cardiac Operating Room	62.80	675	See Section 4.4.6. Inpatient facility only.
Cardiac Monitoring Room	9.29	100	1 per 2 cardiac ORs (Inpatient Services only).
Pump Room	13.94	150	Minimum of 50 NSF per heart/lung pump. Provide only if open-heart surgery is authorized. (Inpatient Surgical Services only).
Ortho. Operating Room	62.80	675	See Section 4.4.6. Inpatient facility only.
Orthopedic equipment storage	11.15	120	Per Ortho OR (Inpatient Services only).
Plaster Cart storage	6.50	70	1 per 2 Ortho ORs. (Inpatient Services only).
Scrub Area(s)	6.50	70	1 per 2 OR's. Each scrub area includes two double handsinks

DoD Space Planning Criteria for Health Facilities
Surgery (Inpatient and Ambulatory)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>Surgical Suite (continued):</u>			
Substerile Area(s)	13.94	150	One per 2 OR's. Includes pharmacy supply station system- automated dispensing system, point of use.
Sterile Core	37.16	400	One per two ORs. if total number of ORs. is two, or if there is any remainder of OR's beyond clusters of four.
	69.68	750	One per every four OR's if there is a number of OR dividable by four.
Decontamination/ Cleanup Area	11.15	120	One per 2 OR's.
Crash cart storage	3.72	40	Includes space for 2 crash carts per every 4 OR's.
Surgical Suite Nurse Station	11.15	120	One per 4 OR's.
Cart Lift Access	9.29	100	One per OR suite.
Case Cart Storage	3.72	40	Minimum. 20 nsf per each OR greater than 2. If no dedicated cart lift access, increase case cart storage to 30 nsf per OR.
Mobile Fluoro. Storage unit	3.72	40	Per mobile fluoro. unit.
Mobile X-Ray Storage	3.72	40	Per mobile x-ray unit.
X-Ray film Processing	9.29	100	Authorized, if > 4 OR's or Cysto. OR.
Laboratory	9.29	100	Teaching facilities only.
Equipment Storage	23.23	250	Minimum. Add 75 nsf for each additional OR greater than 3.
Equipment Cleanup Area	9.29	100	Minimum, or 50 NSF per OR. Maximum 250.
Clean Storage/ Work Area	13.94	150	One per OR suite.
Clean Linen Storage	4.65	50	Minimum. 50 nsf per 4 OR's.
Trash/ Soiled Linen	12.08	130	Minimum. 25 nsf per OR, maximum 200.
Janitors Closet	5.57	60	One per OR Suite. See also Section 6.1.
Housekeeping Equipment/Supply	9.29	100	Minimum. One per every four OR's.
Gurney Storage	1.86	20	One per OR.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Post Anesthesia Care Unit (PACU):			
Recovery Room (Adult), Phase I	22.30	240	Minimum. 120 NSF per bed. 1 recovery bed per OR.
Nourishment station	9.29	100	One per PACU.
Patient Toilet	5.57	60	Phase I: One per 20 beds or fraction thereof. Phase II: One for first 10 Recovery Stations. If greater than 10 Recovery Stations, then one male and one female per 20 beds or fraction thereof. Section 6.1.
Recovery Room (Pediatric)	11.15	120	Minimum when pediatric surgery part of MTF mission. Add additional pediatric rooms based on percentage of pediatric surgical workload and reduce patient recovery (adult) by the number of pediatric beds provided, but not below minimum of two recovery beds.
Isolation Room	11.15	120	1 per unit. This may be deleted or increased, based on the ICRA.
Isolation Toilet	4.65	50	1 per isolation room.
PACU Control (Nurses’ Station)	11.15	120	One per PACU.
Toilet (Dedicated PACU Staff Toilet)	5.57	60	One per PACU.
Mediprep	5.57	60	Minimum. 60 nsf per every additional 20 recovery beds greater than 20.
Crash Cart	3.72	40	NSF. Includes space for 2 crash carts per recovery room.
Ice Machine	.93	10	One per PACU.
Clean Supply	9.29	100	Minimum (10 NSF/bed). Maximum 200 nsf.
Soiled Utility	.57	60	One per PACU.
Trash/Soiled Linen	4.65	50	Minimum (5 NSF/bed).
Recovery Cubicle, Phase II	44.60	480	Minimum, for 2 ORs. 120 nsf per each cubicle (seat or bed). 2 per recovery cubicles (seat or bed) per Phase II OR.
Nurse Supervisor – Recovery Room	11.15	120	Only if FTE is authorized.
Physician’s Workroom	11.15	120	If more than 4 OR’s.
Consultation Room	11.15	120	Per 20 beds or fraction thereof.
Nurses’ Workstation	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the day shift.
Equipment Storage	3.72	40	One per OR.
Janitors’ Closet	5.57	60	Minimum one per OR suite. See also Section 6.1.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>Surgery, PACU, Anesthesia Lockers, Toilets and Lounge:</u>			See also Section 6.1.
Staff Locker Rooms	9.29	100	Minimum. Add 7 nsf for each programmed FTE over 8 (on peak shift).
Staff Toilets, single occupancy	5.57	60	Minimum. Increase by one additional toilet for every 15 FTE (on peak shift) greater than 15.
Staff Shower	5.57	60	Minimum: provides for one shower. Increase by one additional shower for every 15 FTE (on peak shift) greater than 15.
Staff Lounge	13.01	140	Minimum. Add 10 nsf for each programmed FTE over 8 (on peak shift).
<u>Anesthesia:</u>			
Chief of Anesthesiology	11.15	120	One per OR Suite.
Chief Anesthetist	11.15	120	One per OR Suite.
Workstation Anesthesiologists	5.57	60	Consolidate each four or few workstations into single rooms. One workstation per programmed FTE.
Workstation Nurse Anesthetists	5.57	60	Consolidate each four or few workstations into single rooms. One workstation per programmed FTE.
Office, Secretary	11.15	120	Only if FTE is assigned.
Anesthesia Workroom, Clean	13.94	150	Minimum or 30 NSF per OR.
Anesthesia Workroom, Soiled	9.29	100	Minimum or 20 per OR.
Drug Storage	9.29	100	Minimum. 10 nsf per anesthesiologist or nurse anesthetist.
Anesthesia Gas Storage Full or partially full containers	4.65	50	One per Surgical Suite.
Anesthesia Gas Storage Empty Containers	4.65	50	One per Surgical Suite.
Students' Workstation(s)	5.57	60	Per student anesthetist. Max. 4 students per room.
Pain Clinic			See Section 3.11.
<u>Surgical Suite Administration:</u>			
Conference Room	20.90	225	One per surgical suite.
Student Workstation(s)	3.72	40	Per student for the average # of students. Not for surgery residents. (Inpatient Surgical Services only).
Instructor	11.15	120	Only if teaching facility and instructor FTE programmed.
Clerical/Secretary Area	5.57	60	Per clerk.
Dictation Area	9.29	100	One per every four ORs.
Office, Inpatient Supervisor	11.15	120	If FTE programmed.
Nurse Supervisor's Office	11.15	120	One per OR Suite.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Surgical Suite Administration (continued):			
Nurses' Workroom	11.15	120	Minimum. Add 40 nsf for each nurse above 4 assigned to the day shift.
Equipment Workroom	9.29	100	Only if authorized Biomedical equipment repairman is permanently programmed FTE.
On - Call Duty Room	11.15	120	One per on-call personnel FTE programmed.
On - Call Duty Room Toilet	6.50	70	One per On-Call Duty Room. See Section 6.1.
NCOIC/LCPO/LPO Office	11.15	120	One per clinic/department.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.

Functions which are required for Residency Education in Anesthesiology (only in a hospital):

The following areas must be programmed if the MTF has a Residency Program in anesthesiology. There are no known cases of this occurring in a facility that does not provide inpatient services. These areas are in addition to those listed under common areas above.

Director of Anesthesia Residency	11.15	120	One per director of an Anesthesia Residency Program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of an Anesthesia Residency Program, if there is a programmed FTE secretary position.
Anesthesia Residency Coordinator	11.15	120	One per Anesthesia Program Coordinator if there is a programmed FTE.
Resident's Office Space	11.15	120	120 nsf minimum, 60 nsf per programmed resident.
Residency Library	22.29	240	One per Anesthesia Residency Program.
Conference Room	37.16	400	One per Anesthesia Residency Program.
Residency Research Technician	11.15	120	One per Residency Program, if there is a programmed FTE.

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

4.4.6. **FORMULAS:**

Process: The formula below works for the various types of operating rooms (general surgery, neurosurgery, cardiac, orthopedic surgery, cystoscopic and other specialty operating rooms). The number of procedures per day must be determined for each type of room desired and the average length of time for the procedures occurring in that type of room must be determined.

Data required for:

Numbers of General Operating rooms - number of general operating room procedures within a year* (include endoscopic procedures).

Numbers of Special Operating rooms -

- a. Number of cardiac procedures per year.
- b. Number of neurosurgical procedures per year.
- c. Number of orthopedic surgery procedures per year.
- d. Number of cysto. surgery procedures per year.

Average Time per Procedure (minutes) - The time per procedure should be obtained via examination of the operating room schedule. The time should be aggregated in groups associated with the types of operating rooms which are being programmed. The average time per procedure must include the time of clean-up and the preparation time.

* Formula assumes that during the reporting period of one year, that surgical procedures will normally occur during 250 days (365 days less weekends and holidays)

Formula For Determining The Required Number of Operating Rooms

$$\text{OR Number} = \frac{(\text{Daily Number of Procedures}) \times (\text{Average Time \{minutes\} per Procedure})}{360 \text{ minutes per day}}$$

For fractions less than half a room, round down. For fractions greater than or equal to half a room round up.

Calculate room requirements for each type of operating room desired separately based on separate procedure data - (general, neuro., cardiac, cysto., orthopedic)

- Step 1. Determine the average number of procedures per day by dividing the annual number of procedures by 250 days. Separate and determine for each type of operating room desired (general, neuro., cardio, ortho. or cysto.).
- Step 2. Determine the average time it takes to accomplish a procedure of the type desired (general, neuro., cardio, ortho. or cysto.).
- Step 3. Insert the numbers attained in steps one and two into the formula and calculate the number of the type of operating rooms required. There may not be fewer than two general operating rooms.
- Step 4. Repeat steps one through three for each type of operating room desired (general, neuro., cardio, ortho. or cysto.).

DoD Space Planning Criteria for Health Facilities

Surgery (Inpatient and Ambulatory)

Example: A medical facility accomplishes 6,500 general operating room procedures in one year. Determine the required number of operating rooms (average time is examples only).

Step 1. Average # of procedures per day = $\frac{6,500 \text{ Procedures / per year}}{250 \text{ day / year}} = 26 \text{ procedures/day}$

Step 2. Average time per procedure = 117 minutes for general surgery procedures

Step 3. Number of ORs = $\frac{(26 \text{ procedures / day}) \times (117 \text{ minutes / procedure})}{360 \text{ min.}}$

= 8.45 ORs

Provide 8 general operating rooms.

DoD Space Planning Criteria for Health Facilities

Central Sterile

4.5.1. PURPOSE AND SCOPE:

Central Sterile (CS):

This document sets forth the space planning criteria for the decontamination, sterilization, processing and packaging of instruments and reusable supplies required for patient care in a DoD health care facilities. This activity often packages health care items into “packs and trays” which may include reusable items, new items or both. The title and scope of functions accomplished in this area may vary between the Services and between facilities. In this document, this function is referred to as Central Sterile (CS).

Concepts of Operation:

It is important that the programmer understand the projected concept of operation for the Central Sterile (CS) of the health facility that is being programmed. In some medical treatment facilities (typically freestanding clinics) this service may not occur and those items in need of decontamination may be sent to a hospital and re-supplied in like kind. In some smaller medical clinic facilities, the sterilization service of a Dental Clinic (for example, Dental Instrument Processing Centers in the Air Force) may be used to meet the CS needs. Additionally it is typical that some decontamination capability will exist in the operating room suites, especially for “flash” sterilization of instruments.

In general the following is true:

- All sterilization of supplies and instruments will be completed by the CS. Sterile supplies will be distributed to using areas by dedicated delivery systems or by Medical Materiel personnel.
- All disposable items that do not require processing and sterilizing will be stored and distributed to the using area by Medical Materiel.
- Equipment requiring CS handling will be cleaned, decontaminated, and stored in the CS in a clean environment.
- The CS as defined in this document may be designed as part of a total material distribution system.

Clean and dirty separation: The separation of activities dealing with sterile and non-sterile items is important to the layout and use of the spaces described in this section. This separation may be thought of as a “sterile line” or “red line” that traverses the CS area. One side of this line is dirty and the other is clean. This line generally is defined by the activities on either side of the autoclaves. This is especially true if “pass-thru” autoclaves are used. The line becomes blurred at the point of autoclaves which are not “pass-thru.” Those activities (receiving, decontamination) that lead up to items being placed in the autoclave (sterilization) are on the dirty or contaminated side of the CS. Those activities which occur with items that are removed from the autoclave(s), should occur on the “sterile side” of the CS.

4.5.2. DEFINITIONS:

Assembly Area - Assembly generally occurs on the clean side and is space needed to put together sterile items (expendable and nonexpendable) for later delivery to the sections or services where they will be used. Note that the term assembly can be confusing as there are situations where non-sterile items are put together to be sterilized together.

Cart Queuing Area - Area for queuing carts that are ready to be delivered to the using area.

Conditioned Water Unit – Some sterilizers require conditioned (softened) water in order to function properly. If facilities provide clean stem, a conditioned water unit may not be necessary.

DoD Space Planning Criteria for Health Facilities

Central Sterile

Decontamination - Freeing an object of some contaminating substance - cleaning and sterilizing.

Decontamination Area - Area for the cleaning of soiled, contaminated, and used items that have to be returned to the CS. These items are cleaned and then sterilized in the decontamination area.

Equipment and Cart Holding Area - A holding area for medical equipment and carts after they have been decontaminated and cleaned prior to storage or issue. The equipment will then be moved to materiel distribution for storage in a clean area. A portion of this area may also serve as a case cart holding area.

Heat Sensitive Cleaning Area - Area for the decontamination of heat sensitive items such as thermometers, lens equipment, etc. Heat sensitive sterilization can be accomplished via alternative low temperature sterilization. This area is a part of the sterilization area.

Housekeeping - The area where housekeeping items required in the CS are stored. Separate areas will be maintained in both the decontamination area and in the clean area.

Instrument Storage and Assembly Area - Storage area for non-sterile instruments that are to be used in sets and trays. Area includes space for assembling sets of instruments.

Receiving, Decontaminating, and Cleaning Area - An area where reusable instruments, supplies, equipment and carts are received, sorted, cleaned, and decontaminated. This area adjoins the sterilization area.

Size of Central Sterile Service – This criteria divides the central sterile services into three size options: large, medium and small. These sizes align with the size of the central sterile service needed to support health care service in a clinic or hospital supporting itself and in some cases satellite services (health and dental) on an installation. Generally, the small size is for a facility, which has no inpatient services, the medium size is for a community hospital and the large size is for a medical center or large community hospital with satellite services.

Sterile Storage Area - Area to hold sterile processed materiel that is awaiting delivery to using agencies.

Sterilization Area - Consists of space for steam sterilizers, alternative low temperature sterilization, along with loading and unloading space for each machine.

4.5.3. **POLICIES:**

When Service is Provided: At a minimum, Central Sterile (CS) service will be programmed into any DoD medical treatment facility, which includes an operating room. Based on the concept of operation, a central sterile service may be provided in medical treatment facilities that do not have operating rooms, but require an “in facility” capability, for such items as a steam sterilizer and a Steris.

Lockers, Lounges, Toilets, Showers - Separate staff support area should be provided for those personnel working in clean areas and for those personnel in the Decontamination area. If there is a single support area, it should be centrally located with separate exits to the decontamination and clean areas.

DoD Space Planning Criteria for Health Facilities

Central Sterile

4.5.4. PROGRAM DATA REQUIRED:

Will the CS be provided with conditioned water (piped into the CS) that can be used in the sterilizers, or will the water provided to the CS need to be conditioned? Will the CS be provided with clean steam?

Is a CS needed in this facility, or can such service be provided from some other source (another medical treatment facility nearby or a dental clinic)?

Classify the facility being programmed into one of the following four categories:

- A. A health clinic which receives CS support from another MTF or Dental Clinic.
- B. A health clinic, which does not provide ambulatory surgery, is alone on an installation and which does not receive CS support from another source?
- C. A health clinic, which provides ambulatory surgery or a community hospital.
- D. A medical center.

Note: If the answer above is A., then no CS should be programmed. If the answer is B., then a small CS should be programmed. If the answer is C., then a medium CS should be programmed. If the answer above is D., then a large CS should be programmed.

A= no CS
 B= small CS
 C=medium CS
 D=large CS

Exchange cart requirements:

How many operating rooms are in the facility being programmed?

How many carts, other than those dedicated to the ORs, are being serviced by the CS?

What is the projected number of cases per OR per day?

Is there an OB service?

Is there a Cardiac OR procedure room?

Is there a cardiac specialty OR?

Are there other than cardiac specialty ORs?

Note: Transportation systems (cart conveyors, pneumatic tubes, box conveyors and dumb waiters) may add to the space requirements in this area. If the planned medical treatment facility will include such systems, the programmer will need to add space for the "Send and/or Receive" points for such systems.

DoD Space Planning Criteria for Health Facilities

Central Sterile

4.5.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Receiving, Decontaminating, and Cleaning Areas:			
Receiving Window	5.57	60	One per CS service.
Cart receiving	.93	10	Per cart times 5% of total carts. See formula in 4.5.6 for determining number of carts.
Double sinks with work counters	4.64	50	2 per CS service; 1 in heat sensitive area on the contaminated side of the low temperature sterilizer, one in the general decontamination/cleaning area.
Distilled Water unit	2.79	30	1 per CS service. This may not be necessary if the distilled water is provided to the CS from a central source (building plant).
Automatic cart washers	15.79	170	Per cart wash machine. One machine per hospital with more than 4 ORs.
Manual cart wash area	11.15	120	One per CS service. Provide only when automatic cart washers are not programmed.
Decontamination Equipment Area (includes washer pasteurizer, washer sterilizer, and sonic cleaner).	32.52	350	Per small CS service.
	46.45	500	Per medium CS service.
	69.68	750	Per large CS service.
Tables for Drying	1.86	20	Per small CS service.
	2.79	30	Per medium CS service.
	4.64	50	Per large CS service.
Assembly Areas:			
Instrument Storage	9.29	100	Per small CS service.
	13.94	150	Per medium CS service.
	27.87	300	Per large CS service.
Assembly Space (tables)	11.15	120	Per small CS service.
	18.58	200	Per medium CS service.
	37.16	400	Per large CS service.
Equipment Holding Area	13.94	150	Per small CS service.
	27.87	300	Per medium CS service.
	37.16	400	Per large CS service.
Bulk storage	13.94	150	Per small CS service.
	27.87	300	Per medium CS service.
	55.73	600	Per large CS service.

DoD Space Planning Criteria for Health Facilities

Central Sterile

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Assembly Areas (Continued):			
Assembly area (includes table work areas, basket storage, basket return, mobile tables, pre- assembly space and pre-sterile holding space).	37.16	400	Per small CS Service.
	60.39	650	Per medium CS Service.
	83.61	900	Per large CS Service.
Sterilization Areas:			
Sterilization Equipment Area (area for sterile air tube drying and steam sterilizers)	23.22	250	Per small CS Service.
	46.44	500	Per medium CS Service.
	65.02	700	Per large CS Service.
Sterile Storage Areas (SSA):			
Sterile Storage Area	27.87	300	Per small CS Service.
	55.73	600	Per medium CS Service.
	92.89	1000	Per large CS Service.
Cart Queuing & Clean Cart Storage Areas:			
Clean Cart Storage	.93	10	NSF per cart. Space for 20% of carts. See formula in 4.5.6 for determining number of carts.
Cart queue	.93	10	NSF per cart. Space for 5% of carts. See formula in 4.5.6 for determining number of carts.
Staff and Support Areas:			If CS is collocated with Surgery, combine with Surgery, if feasible.
Chief of CS Service	11.15	120	One per CS Service.
Administrative area	9.29	100	Minimum of 60 nsf per programmed administrative FTE if greater than one.
NCOIC/LCPO/LPO Office	11.15	120	One per CS Service.
Lounge	9.29	100	Minimum, add 10 NSF per FTE staff over 10 per shift. 200 NSF maximum. If FTE staff is less than 4, do not provide a separate lounge, but collocate with Surgery lounge (see Section 4.4).
Locker room - Decon.			See Section 6.1. For personnel assigned in the Decon. Area. Combine with Clean locker room, if feasible.
Male	9.29	100	Minimum, add 10 NSF per male assigned over 10.
Female	9.29	100	minimum, add 10 NSF per female assigned over 10
Toilets: - Decon.			See Section 6.1.
Male (lav, ur, wc, sh)	11.15	120	Minimum. If more than 25 males assigned, add 1 ur, 1 wc, 1 lav, 1 sh @ 30 NSF. Minimum 2 wc.
Female (lav, wc, sh)	8.36	90	Minimum. If more than 25 females assigned, add 1 lav, wc, sh @ 30 NSF/fix. Minimum 2 wc

DoD Space Planning Criteria for Health Facilities

Central Sterile

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Staff and Support Areas (Continued):			
Locker Room – Clean:			See Section 6.1. For personnel assigned in the Clean Area. Combine with Decon. locker room, if feasible.
Male	9.29	100	Minimum, add 10 NSF per male assigned over 10.
Female	9.29	100	Minimum, add 10 NSF per female assigned over 10
Toilets - Clean:			See Section 6.1.
Male	11.15	120	Minimum. If more than 25 males assigned, add 1 ur, 1 wc, 1 lav, 1 sh @ 30 NSF. Minimum 2 wc.
Female (lav, wc, sh)	8.36	90	Minimum. If more than 25 females assigned, add 1 lav, wc, sh @ 30 NSF/fix. Minimum 2 wc
Janitor's Closet	5.57	60	One janitor's closet per 10,000 nsf. See Section 6.1.
Central Sterile Service for Freestanding Clinics:			
Clinic - Central Sterilization	16.72	180	For Clinics greater than 35,000 gsf, but less than 100,000 gsf. Justification required.
	22.30	240	For Clinics greater than 100,000 gsf, but less than 125,000 gsf. Justification required.
	27.87	300	For Clinics greater than 125,000 gsf. Justification required.

4.5.6. FORMULA:

Formula for calculating number of carts:

of cases per O.R. per day X # of ORs = _____ carts

+ 2 carts if OB performed

+ 1cart if cardiac OR

+ 4 carts if there are specialty ORs, other than cardiac ORs

+ _____ number of carts (other than from OR Suite) that are serviced by CS

Calculate and sum all applicable above.

DoD Space Planning Criteria for Health Facilities

Food Service

5.1.1. PURPOSE AND SCOPE:

This section provides space planning criteria for Food Service Facilities in all type of DoD hospitals worldwide.

5.1.2.1. DEFINITIONS:

Administration - Includes office space for the administrators of the Food Service, their assistants, supervisory personnel, and clerical and technical support personnel. It includes space for private and group patient consultation and food service conference/training/rooms as appropriate.

Cafeteria Serving Facilities - Includes all space and equipment required for foods that can be quickly prepared and served (short order); and the holding and serving of all food and beverages required and so arranged and presented that the patron can make his/her choice of individual items (cafeteria). This includes the cafeteria serving line, short order preparation and serving facility, salad bars, beverage stations, backup units, checker/cashier stations, and access or circulation space related to their use. Also, facilities for the service of therapeutic diets to ambulatory patients are included.

Circulation Space - Includes all space designed to provide circulation among various hospital units including necessary shaft and stairway space. The food service criteria are based on the assumption that all elements of the food service, with specific exception of areas located on nursing floors, are located contiguously on one floor in one block of space. Within this block of space, all necessary circulation has been provided for all elements of the food service, which are contiguous. If any element of the food service is not entered directly from other elements of the food service, traffic aisle and access will be provided from general building "circulation space." It is expected that general building circulation space will connect the following points to the rest of the hospital as public corridor or as space within the food service area:

- Beginning of cafeteria serving line or lines.
- End of patient tray assembly line or point from which carts leave for nursing units.
- The point at which soiled dishes are delivered to the dishwashing area.
- Exits from cafeteria.
- Administrative areas.
- Locker areas.
- Storage areas.

Dining Room - The net floor area for dining tables and chairs, circulation space including access and other aisles, tray stands, and service or busing carts if utilized. Items such as salad bars, condiment and silverware dispensing equipment, and beverage stations, even if located in the dining room area, are included as part of the space allocation for the cafeteria serving facilities. The "dining room" does not include soiled dish collection even if located in the dining room; this function is by definition included in "Sanitation."

Dry Stores - Those food items, which may be stored without refrigeration. In some geographic locations, temperature and humidity control may be required.

DoD Space Planning Criteria for Health Facilities

Food Service

Food Processing and Preparation Facilities - Food processing and preparation includes the total of all activities from the time ingredients are withdrawn from storage until the prepared menu items are brought to point of service. The food processing and preparation areas include the following centers:

- Meat Preparation
- Fruit/Vegetable Preparation
- Pastry Preparation
- Special therapeutic Preparation
- Steam
- Fry
- Grill and Broil
- Baking and Roasting
- Mixing
- Therapeutic Diet Preparation
- Salad Assembly and/or Portioning
- Dessert Assembly and/or Portioning
- Patient Tray Assembly.

Food Service Facilities - For the purpose of these criteria, Food Service Facilities include the space required for the nutritional care of all patients and all individuals authorized to subsist. The criteria provides space for cafeteria service, patient tray service, sanitation, food processing and preparation, ingredient room, receiving and storage facilities, dining room, administration, and staff facilities. These criteria apply only to hospital food service activities financed from appropriated funds.

Frozen Stores - Those food items requiring subzero (-29 degrees C (-20 degrees F)) storage temperatures.

Ingredient Room - An area where specified quantities of dry ingredients, fresh fruits and vegetables, and meat items required for food preparation are weighed, measured, packaged, and assembled according to standardized recipes. This area is optional: except at Navy facilities, prep areas are more commonly located within the kitchen open area.

Nonfood Stores - Those nonfood items/supplies required by food service. Nonfood stores include such items as cleaning agents, disposable dishes, permanent dishware, blank forms, utensils, small equipment, diet kits, etc.

Nourishment Centers/Galleys/Pantries - Dedicated areas on nursing units that are designed and equipped for use by patients. This includes limited, refrigeration, and a microwave and ice making equipment.

Patient Tray Service - Includes all space and equipment required for the online preparation of foods and the holding, and assembly of all food and beverage items for patient nursing units. It includes space for online food preparation equipment, the tray assembly area, backup units, cart storage area, and mechanized assembly system.

Peak Meals - Maximum number of meals (i.e. either breakfast, lunch or dinner) served in a day. Normally, peak meals are the lunch serving, when food is prepared for both inpatient meals and cafeteria/dining meals.

Ration - One ration equals three inpatient meals per day (typically breakfast + lunch + dinner).

DoD Space Planning Criteria for Health Facilities

Food Service

Receiving and Storage Facilities - Includes all functional areas used by food service to receive, inspect, verify, and accept deliveries of food and nonfood supplies, and the storage and issue of these items. Receiving and storage facilities include space required for receiving and storekeeper, dry stores, refrigerated stores, frozen stores, and nonfood storage. A refrigeration equipment (mechanical) room is also included, but is most often located outside; either on the ground on a concrete pad, or on the roof .

Refrigerated Stores - Those food items that must be maintained within an approximate temperature range of 34 degrees - 40 degrees F (1 degree - 4 degrees C). Thawing or tempering of frozen items must also be accomplished within this temperature range.

Sanitation - Includes all space and equipment required for soiled dish collection, dishwashing, central detergent dispensing, storage for clean dishes, soiled pot and pan collection, pot and pan washing, storage of clean pots and pans, trash disposal, janitors' closets, and cart wash.

Scramble System – Instead of a straight food dispensing area, a nontraditional food dispensing area that uses multiple food serving stations. (e.g. Salad Bar, Hot Food Line, Dessert Line, Sandwich Line, and Beverage Island). Sometimes referred to as Scatter system.

Staff Support Facilities - The space required for toilets, showers, lockers, and lounges for both professional and nonprofessional food service staff. It would include any toilet facilities designated for the "Administration" section.

5.1.3. POLICIES:

Criteria have been developed with the objective of providing high quality food service to patients and authorized individuals. At minimum, quality hospital food service is interpreted as nutritious food in sufficient quantity with consideration for regular and therapeutic requirements, prepared in accordance with the highest sanitation standards from standardized recipes; and attractively served at optimum temperatures, within normal or prescribed meal hours, in a pleasant environment and at the allotted costs.

Planning and programming construction or modernization projects involving hospital food service facilities will reflect the "state of the art" equipment and design. Maximum emphasis will also be given to energy conservation measures in the design.

Hospital food service facilities shall be planned to provide the desired quality of food at the lowest life cycle cost. The total cost includes the costs of the building, equipment, labor, energy and utilities, supplies, and depreciation required to support food service, and related activities.

Construction or modernization projects will be planned and developed on the basis of centralizing all food preparation in one location where possible and economically feasible.

If a facility has less than 25 beds, then a dining hall will not be provided without special justification. Regardless of size, all facilities should perform a study to determine if food services are required.

DoD Space Planning Criteria for Health Facilities

Food Service

The following policy statements are listed in relation to the specific facilities to which they apply:

Cafeteria Serving Facilities:

Cafeteria Serving Facilities include all equipment and space required for the short order preparation and holding and serving of all foods and beverages required. In the smallest facilities the cafeteria serving line may be designed with two parallel lines with the tray rails facing each other. The cafeteria serving area may be subdivided to separate regular kitchen prepared and served items; short order prepared and service items; and therapeutic diet items for ambulatory patients.

Depending upon agency policy, a scramble or modified scramble system may be utilized when determined feasible. Self service items such as salads, beverages, and ice cream may be physically removed from the serving lines and be established as separate stations in the cafeteria serving area. At the upper limits of the planning criteria for the cafeteria serving line(s) the scramble system was used in determining the number of square feet.

The method of payment should be determined in advance of designing the serving area: an “a la carte” system, a scramble system, or a point of sale system. An ala carte system places the cashier at the exit of the serving line, since patrons pay item-by-item. A point of sale system, or one price per meal regardless of quantity, allows the cashier to be moved to the entrance of the service line. A scramble system can have cashiers at each area or at the exit of the serving line. The type of system needs to be determined prior to the design layout.

It should be determined if there will be a “take-out” service provided. These patrons need to be discounted from the seating area. It should be determined if take out items are limited to pre-packaged sandwiches, subs and salads, or whether warm meals in Styrofoam clamshells will also be offered. Either way, the amount of additional space will only involve adding an area for an open face merchandiser cabinet.

Refer to Section 5.8 for criteria information regarding food service vendors beyond the full service cafeteria setting, such as area for vendor space (i.e. McDonalds, Starbucks, etc.), vending machines, and grill/snack bar services.

Cafeteria serving facilities and dining rooms should be designed in such a way that the following can be realized:

- a. Entry and exit points will be designed to provide maximum security, control, and accountability. There should be only one entry and one exit point to the serving lines. This enables the cashiers to have better control of patrons.
- b. Compliance with all handicapped accessibility regulations, including the “American Disabilities Act.” Specifically, ensure that 5% of all seating areas accessible; this may require tables that raise and lower, additional floor area, etc.

Patient Tray Service Facilities:

All patients should be served complete meals at acceptable temperature (hot food above 140 degrees F (60 degrees C) and cold food below 45 degrees F (7 degrees C)). These temperatures apply to point of consumption and not the point of assembly. Particular precaution should be taken in this area to provide adequate and convenient backup refrigeration for portioned items so that food items can be replenished frequently and maintained at proper temperatures during assembly. Each agency will have the option of selecting the type of tray service to be used on an individual project basis (i.e., single tray controlled temperature carts, pellet system to retain temperature, mechanical conveyor, bulk food carts, etc.).

Patient tray service facilities are to be designed to serve selective and nonselective regular and therapeutic menus.

DoD Space Planning Criteria for Health Facilities

Food Service

Space for nourishment centers in ward areas is listed below. Refer to Section 4.1 for all other nursing unit criteria.

Facilities shall have the option of either line or carousel equipment for tray service.

Where volume exceeds maximum, then a second line can be established. Hospital lines typically assemble 6 to 9 trays per minute.

Sanitation Facilities:

Dish rooms: Dish rooms should be designed and equipped to provide for the collection of all soiled dishes from dining rooms and nursing units. Adequate access from dining rooms and service elevators must be provided for optimum flow of dishes. Where possible and economically feasible, all dishwashing will be performed in a single centralized area. The dishwashing period should not exceed three hours for any meal.

Cart Holding Space: Holding space of 1/4 the number of food carts must be provided in, or adjacent to, the dishroom. Agency policy may determine whether conveyor belts or dish collecting carts will be used to move dishes from the dining rooms to the dish room.

Dish Machines: Stationary/manual rack type dish machines will be utilized in medical facilities with less than 76 beds, which usually do not have a staff feeding mission. Facilities serving up to 405 peak meals or with 76 - 175 beds may utilize the conveyor type rack machines. A flight type dish machine or conveyor (merry-go-round) type dish machine with blow dryer is authorized for those facilities with more than 175 beds or serving more than 405 peak meals. Agency policy may determine which type of machine(s) will be utilized.

Pot Washing Area: Facilities serving less than 276 peak meals or with less than 126 beds should have dishwashing and pot washing in the same room utilizing a common clean table for the dish machine and clean pot draining and drying. Facilities serving more than 276 peak meals or with more than 126 beds should have a designated alcove close to food preparation for pot and pan washing. An automated pot and pan machine is provided for facilities serving more than 276 peak meals.

Garbage Disposal: Garbage disposals will be provided in the soiled dish collecting table, soiled pot collection table, and fresh fruit & vegetable processing. An automated pot and pan machine is provided for facilities serving more than 276 peak meals.

Trash Compactors: Compacting mechanisms should be provided on outside dumpsters at back docks. If a compactor is provided on the dumpster, the requirement for a compactor in the storeroom may be deleted. Requirements for refrigerated garbage rooms and garbage can washrooms, will require special justification

Pulper Grinder Extractor Systems: Pulper grinder extractor systems are authorized where local environmental laws allow them.

Cart Washing Area: Cart washing area should ideally be located between the dish room and cart storage. The cart wash area can be utilized to wash food carts, dish dispensers, angle ledge racks, and platform trucks.

All medical facilities may have manual cart wash areas or a steam gun area. Facilities with less than 175 beds are not authorized an automatic cart washing machine. Depending upon agency policy, medical facilities with 175 beds or over may have a pass through (automatic) cart wash machine, but may opt to provide a manual cart wash and/or steam gun area.

DoD Space Planning Criteria for Health Facilities

Food Service

Janitor's Closet: Janitor's alcove/closet will be provided in the kitchen and dish room, dining room, serving line and back dock areas. See Section 6.1 for additional information.

Food Processing and Preparation Facilities:

The food processing and preparation facilities operate according to the functional relationship set forth in the definition. Equipment utilized will be specified for the size of the facility to optimize "batch cookery" thereby promoting a high level of food quality. Separate space requirements for each center will not be necessary in all cases. The operational work load will dictate joint utilization of various equipment items. The criteria are based on designs, which maximize use of open areas and minimize the use of walls and partitions to provide flexibility and economy. The centers in food processing and preparation should be established according to the following criteria:

Meat Preparation: Meat processing may be done in all medical facilities. Meat cutting (processing) rooms must be maintained at temperatures not to exceed 55 degrees F (13 degrees C). Normally, portioned meats only are used in facilities with less than 175 beds. Factors influencing agency policy include availability, economy, volume, and quality.

Pastry Preparation: Pastry items can be produced in all medical facilities. Depending on agency policy and availability, some prepared pastry items may be procured locally; however, all kitchens still require a bake prep area.

Therapeutic Diet Preparation: Since the preparation of hot, therapeutic diet food is different from regular hot food preparation, an area of food processing must be allocated. In smaller facilities with 125 beds or less, much of the equipment can be used jointly. For facilities with more than 125 beds, a separately equipped area will be designated for therapeutic diet preparation.

Steam: Since this center is an area where steam is utilized to cook various menu items, it is imperative that an adequate supply of "clean" steam, which contains no boiler treatment compounds, be available. If clean steam is not readily available, equipment, with steam heated coils, shall be provided.

Fry: Conventional fryers with or without automatic basket lifts are utilized in all medical facilities. Pressure fryers should be used in facilities over 175 beds.

Grill and Broil: Conventional griddles and broilers or char-broilers and conveyor broilers are authorized in all medical facilities.

Baking and Roasting: For determining space requirements in the planning criteria, conventional roasting and baking ovens are used. The use of other types of ovens may depend upon agency policy and should be reflected in each agency's equipment authorization tables.

Mixing: Medical facilities are authorized mixers (automatic) with all standard attachments/adapters including the meat grinder, chopper, and interchangeable hubs.

Fresh Fruit and Vegetable Preparation: Space and equipment must be allocated for this center in all medical facilities. Fresh fruit and vegetable processing center is utilized for cleaning, chopping, slicing, dicing, of all fresh fruits and vegetables used in hospital food service. Depending upon agency policy and physical constraints, this center's space allocation may be combined with the ingredient room or combined with the salad assembly and portioning center.

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Salad Assembly and Portioning: Space will be provided in each medical facility for the assembly and portioning of all salads. When ingredients in an already processed state are received from either an ingredient room, subsistence storage area, and/or fresh fruit and vegetable processing center, no major equipment other than a work site (table) will be required. When there is no ingredient room, the space allocated for this center will be combined with the fresh fruit and vegetable center.

Dessert Assembly and Portioning: In all medical facilities that do not prepare pastry items, an equipped area must be allocated for this center. Depending upon physical constraints and layout, medical facilities with less than 175 beds that prepare pastry will use space jointly for dessert assembly and portioning and pastry center or any other feasible area within the food processing and preparation facility.

In medical facilities of 175 beds or greater that prepare pastry, a separately equipped area for dessert assembly and portioning will be provided. This separately equipped area may be included within the pastry center or any other feasible area within the food processing and preparation facility.

Beverage Dispensing: Provide a centralized carbonated beverage dispensing room in all new medical facilities.

Ingredient Room:

Depending upon agency policy, an ingredient room may be utilized to introduce an additional element of control into the total food production process. The ingredient room serves as the coordination link between dry food storage, meat processing, fresh fruit/vegetable processing and actual food production; it should be located so as to facilitate a smooth flow of materials between these functional areas. Generally, the ingredient room works best if it is physically located in conjunction with dry food storage, meat processing, and fresh fruit/vegetable processing. It can also be part of the open kitchen area. The ingredient room must have the capability for holding assembled recipe components in a refrigerated or non-refrigerated environment as required prior to dispatch to the food production area(s). The ingredient room must be equipped with a hot/cold water supply and an appropriate variety of weighing and measuring devices in addition to work table(s), delivery carts, ingredient bins, etc.

Receiving and Storage Facilities:

The receiving and storage facilities will be planned on the basis of the supply system of the agency concerned and should provide for the most economical cost considering purchase prices, freight rates, handling costs, and costs of building and operating storage facilities.

Receiving and storage facilities will be designed to provide maximum security and accountability of inventory items.

Refrigerated units should be constructed and insulated in such a way that they may be converted to frozen storage if the need arises.

A dedicated covered loading dock will be provided. The dock should be located adjacent to the receiving/storekeeper areas and should facilitate easy movement of supply and materials into storage or usage areas. Depending upon agency policy, dock leveling devices may be provided. In certain geographic areas, temperature and humidity controls may be required in dry food storage.

Depending upon agency policy, movable carriage shelving systems may be used in nonfood and dry food storage areas. These systems provide for more efficient use of allocated storage space. Gravity flow shelving may also be used where feasible.

Although nonfood storage provides space for various chemicals, cleaning compounds, and detergents, a separate area (without exceeding total square footage for nonfood storage) should be

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designated for this category of items. Separation will minimize the chance for these potentially hazardous items coming in contact with subsistence supplies or disposable dinnerware.

Dining Room:

The dining room should be designed consistent with the hospital mission, economy, and state-of-the-art in interior furnishings. To the maximum extent feasible, patients are encouraged to eat in the dining room rather than on the nursing unit. The dining room should be located convenient to the hospital traffic flow, contiguous to elevators and main corridor circulation. Depending upon agency policy, the dining room may have windows with a view to the outside environment. Depending upon agency policy, dining rooms may be subdivided into areas for professional staff dining and/or dining/conference room.

Administration:

Space allotted for administration may be subdivided to achieve the best functional design according to agency policy. Offices will be arranged so as to achieve the most efficient use of clerical and receptionist personnel in line with mission or objectives.

Space must be dedicated for private and group patient consultation. The nutrition clinic and weighing/screening/waiting area provided for this purpose is located in the food service administration area. It should be convenient to hospital main corridor circulation so that patient traffic in food service, per se, is minimized. At facilities over 175 beds, a second nutrition clinic and weighing/screening/weighing area is authorized and is in the outpatient clinic.

Food service conference/training rooms may be authorized in hospitals with more than 175 beds, depending upon agency policy. Additionally, hospitals with an education and training mission (i.e., dietetic internship) are authorized a conference/training room.

Staff Facilities:

Staff facilities must be provided to accommodate the total number of individuals (both military and civilian) indicated in the staffing table. Design should be in accordance with agency health and environment regulations and standards. Agency policy may determine the physical location and grouping of staff facilities relative to the remainder of the food service operation. For example, a separate toilet facility may be designated for the administration area as long as total staff facility's space is not exceeded. Also, lockers, toilets, and showers for professional and nonprofessional staff may be located separately. See Section 6 for additional information.

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5.1.4 PROGRAM DATA REQUIRED:

The data shown in the following table is needed by planners for application of the planning criteria and should be developed for both actual experience and planned program:

	Actual	Planned
Number of Meals Served		
a. Patient Tray Service - Identify 30 peak meals served on the nursing units over a 90-day period. Include meals served to ambulatory patients (same day service) in this amount.	_____	_____ (1a)
b. Main Dining Room and Cafeteria - Identify 30 peak meals served in all dining rooms and cafeterias over a 90 day period. Include “take-out” meals served in this number.	_____	_____ (1b)
c. Total Peak Meals (a. + b. = c.)	_____	_____ (1c)
d. Average Peak Meals (c/30)	_____	_____ (1d)
Number of Rations Served:		
a. The sum of the total number of meals served during any consecutive 30-day period of the previous 12 months. Include “take-out” meals served in this number.	_____	_____ (2a)
b. Average ration (a ration = breakfast meal + lunch meal + dinner meal) served per day. (Above divided by 90)	_____	_____ (2b)

When planned program data differ from actual experience data, an explanation should be provided. Examples of such explanations might be that the planned number of meals is based on actual meals served adjusted for a change in the bed capacity of the hospital, or the effect of a new location, or a change in the composition of the patient load. For new (not replacement) hospitals, the explanation may be based on factors from comparable existing facilities. Based upon the previous information, the following program data elements need to be calculated using the indicated formulas.

Patient Trays:

No. of trays to be assembled (3) = Number of patient beds x 75% (non-ambulatory patients.)

Patient Tray Carts:

No. of Carts (4) = Average Peak Meals served by tray service/20 trays per cart.

The number of delivery carts must at least equal the number of nursing units, to ensure one cart per nursing unit.

Seating:

Dining room seats (5)

= Avg. peak meals dining room service (1d, less “take out” meals served)/number of sittings

(See table following):

No. of regular seats = .95 x (5)	(5a)
No. of handicapped seats = .05 x (5)	(5b)

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The number of sittings for various work loads in the dining room is as follows:

Planned Average Peak Meals:

<u>Meals Served in Cafeteria</u>	<u>No. of Sittings</u>
1 -200	1.5
201 - 400	2.0
401 - 550	2.5

Serving line:

Will a conventional straight service line be used versus a scramble system?

Will payment be “a la carte”, point of sale, scramble, or any combination of these?

Storage:

Number of weeks (average) for dry food items?

Number of weeks (average) for non-food items?

Number of days (average) for refrigerated food items?

5.1.5. SPACE CRITERIA:

The following criteria have been developed on the basis of the labor, space, and equipment requirements. The criteria is for conventional food service.

Flexibility Incorporated in the Criteria:

The wide variation in systems encountered in the hospitals makes it necessary to use a flexible concept of planning so that all systems, which have merit, can be accommodated within the criteria.

There is no requirement within the criteria that actual designs of food service facilities adhere rigidly to allocations of space by functional units. Space may be shifted from one unit to another to facilitate the development of a good functional design. However, the total space provided in a design for food service facilities should not exceed the sum of the allocations of space set forth below for all of the functional units of food service.

Workload Break Point Criteria:

Based upon a comparison of workload data among the agencies with DoD, the following table was developed as criteria for workload break points in various size medical treatment facilities:

Constructed Beds in the Medical Treatment Facility	25-75	76-125	126-175	176-350	351-550
Max. Number of Trays Assembled for Nursing Unit Patients at the Peak (Noon) Meal (60% of total beds)	15-45	45-75	76-105	106-280	281-330
Max number of Meals Served in the Dining Room (Noon) Meal	95-125	126-200	201-300	301-600	601-940
Max. Number of Meals Served at the Peak (Noon) Meal	110-170	171-275	276-405	406-880	881-1270
Avg. Number of Rations Served Each Day	65-125	126-190	191-255	256-465	466-580

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FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Cafeteria:			Where the physical plant of an existing hospital makes it impossible to treat the entire hospital as one centralized unit, space requirements may be computed individually for each separate unit. <u>Note:</u> Indicated calculation number “5” from section 5.1.4.
Cafeteria Serving	18.58	200	Minimum. Maximum 5,000 nsf. Number of seats x 7 NSF per seat (5). Increase area by 140% if a scramble system is used. This includes area for take-out service.
Dining Room	1.39	18	x number of regular seats (5a)
	2.32	25	x number of handicapped seats (5b).
Snack Bar, Vending Area			See Section 5.8.
Ward Service:			
Nourishment Center	9.29	100	See Section 4.1.
Patient Tray Service:			Select either Line Tray Service or Carousel Tray Service, but not both.
Line	41.81	250	Minimum. 1000 nsf maximum. Number of trays to be assembled x 4.5 NSF per tray (3).
Carousel	35.30	220	Minimum. 800 nsf maximum. 3.6 x number of trays to be assembled (3).
Cart Storage	0.93	10	Minimum. 10 x number of Patient Tray Carts (4).
Sanitation:			
Dishwashing, dish collection (soiled and clean), clean dish storage.	24.15	260	Minimum. 1200 nsf maximum. Planned Average peak meals served (1d) x 1 NSF per meal.
Pot Washing Center	13.94	150	Minimum. 500 nsf maximum. Average peak meals served (1d) x 1 NSF per meal. NOTE: The escalation of space based on average peak meals will accommodate the space required for an automatic pot washer in facilities serving greater than 276 meals.

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FUNCTION					PLANNING RANGE/COMMENTS							
Food Processing and Preparation:					The areas listed below are based on planned average peak meals as listed in “1d” in Section 5.1.4 above.							
	AUTHORIZED											
Number of beds	25 - 75		76-109		110-170		171-275		276-405		406-550	
	m²	nsf	m²	nsf	m²	nsf	m²	nsf	m²	nsf	m²	nsf
Meat Preparation	4.65	50	6.97	75	9.29	100	9.29	100	18.58	200	37.16	400
Pastry Preparation	0	0	0	0	16.72	180	23.23	250	32.52	350	51.10	550
Hot Food Production: Steam Center, Fry Center, Grill/Broil Center, Bake/Roast Center	23.23	250	32.52	350	37.16	400	41.81	450	46.45	500	60.39	650
Mixing Center	1.86	20	3.25	35	3.72	40	4.18	45	4.65	50	5.11	55
Therapeutic Diet Prep.	4.65	50	4.65	50	6.97	75	6.97	75	9.29	100	13.01	140
Fruit/Vegetable Prep.	6.97	75	9.29	100	13.01	140	13.94	150	18.58	200	21.83	235
Salad Assem./portioning	6.97	75	9.29	100	11.15	120	13.94	150	17.65	190	22.30	240
Dessert Assem./Portion.	1.86	20	1.86	20	2.79	30	2.79	30	5.57	60	13.94	150
Ingredient Room	6.97	75	9.29	100	13.01	140	14.86	160	15.79	170	16.72	180
Carb. Beverage Room	3.72	40	3.72	40	3.72	40	3.72	40	5.57	60	5.57	60

Small/isolated/overseas facilities may be addressed by special study.

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Cart Wash Center:			The areas listed below are based on number of carts listed as “4” in Section 5.1.4 above.
Manual	6.97	75	Minimum. 150 nsf maximum. Number of carts x 10 NSF per cart. Facilities with less than 275 beds are not authorized an automatic cart washing machine.
Automatic	15.79	170	Minimum. Plus 0.5 nsf x number of beds. Facilities with more than 275 beds may opt for an automatic cart washing machine, instead of manual. Select either manual or automatic washing, but do not select both for facilities with more than 275 beds. Cost justification required.
Cart Wash – sanitizing spray system			One per automatic cart wash center. Provides back up for automatic cart washing machine.
Trash Can Cleaning	3.72	40	One per food service area. May be part of trash staging or located at an outdoor service area.
Trash Staging/Sorting	7.43	80	Minimum. Individual study required for greater than 400 meals per day.
Janitors’ Closet	5.57	60	One janitor’s closet per 10,000 nsf. See Section 6.1.

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FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Storage:			
Storekeeper and Receiving	7.43	80	Minimum. Per each 250 average ration. 240 nsf maximum. The number of average rations are listed as "2b" in Section 5.1.4 above.
Dry Food Storage	7.43	80	Minimum. 1.5 nsf x number of weeks of storage x Number of Beds.
Nonfood Storage	7.43	80	Minimum. 0.5 nsf x number of weeks of storage x Number of Beds.
Refrigeration	6.97	75	Minimum. 0.7 nsf times number of beds. If refrigerated storage is stored more than one week (which needs special justification), then double this number.
Freezer	9.29	100	Minimum. 0.5 nsf x Number of weeks of storage X Number of Beds
Flash freezer	7.43	80	Individual study where cook-chill process used. This process is not recommended. Allowed only in facilities over 350 beds.
Refrigeration Equipment room	7.43	80	Minimum. 140 maximum. 20 NSF per 125 Peak Average Rations per day. May be located at an exterior location.
Linen Storage	4.65	50	Minimum. Provide 50 nsf for the first 100 seats in the cafeteria and 15 nsf for each additional 100 seats.
Cleaning Product Storage	7.43	80	Minimum. Provide 80 nsf for the first 75 beds and 10 nsf for each additional 50 beds.
Equipment Storage	9.29	100	Minimum. Provide 100 nsf for the first 75 beds and 25 nsf for each additional 50 beds.
Nutritional Supplements Storage	4.65	50	Minimum. Provide 50 nsf for the first 75 beds and 25 nsf for each additional 50 beds.
Paper Products Storage	9.29	100	Minimum. Provide 100 nsf for the first 75 beds and 25 nsf for each additional 100 beds.
Administration:			
Chief of Food Service	11.15	120	Private office space per FTE programmed.
Secretary to Chief Food Service	11.15	120	Includes Visitor's Waiting Space
NCOIC/LCPO/LPO Office	11.15	120	Private office space per FTE programmed. If open office, then provide 60 nsf.
Conference/ Training Room	14.87	160	25 -300 beds
	23.23	250	301 + beds.
Administrative Office		varies	Refer to Chapter 2.1. Provide if full time administrative support programmed.
Storekeeper/Receiving Office/Area	11.15	120	One per FTE programmed.
Office Supply Storage	4.65	50	Minimum. Provide 50 nsf for the first 75 beds and 10 nsf for each additional 100 beds.

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FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
NutritionClinic:			
Dietitian's Office	11.15	120	1 per FTE dietitian. Private Office Space.
Height/Weight Screening	5.57	60	1 per clinic.
Clinic Conference / Classroom	20.90	225	One per nutrition clinic.
Storage	7.43	80	25-175 beds. Add 20 nsf if greater than 175 beds.
Food Service Administration:			Non-Private Work space
Clinical Dietetics	11.15	120	1 per FTE. If open office, then provide 60 nsf x number of personnel requiring desk space.
Food Production Service	11.15	120	1 per FTE. If open office, then provide 60 nsf x number of personnel requiring desk space.
Education & Research (facilities with dietetic internship)	5.57	60	1 per FTE intern programmed.
Staff Facilities:			
Staff Locker Rooms		varies	See Section 6.1.
Staff Lounge		varies	See Section 6.1.
Staff Showers and Toilets:		varies	See Section 6.1.
Janitor's Closet	5.57	60	One per 10,000 nsf. See Section 6.1.

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Logistics

5.2.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for the acquisition, receipt, storage, quality control, accounting, stock control, property management, distribution, collection maintenance, and control of all material in military health care facilities. Logistics includes medical and non-medical supplies, medical equipment maintenance, property management, plant maintenance, linen control and housekeeping.

5.2.2. DEFINITIONS:

Administrative Area: Offices, waiting rooms, and special areas required by Logistics to engage in overall management of logistical operations of a health care facility and medical material support for installation and satellite activities.

Biomedical Equipment Maintenance Service: Location of maintenance and calibration shops where inspection, maintenance, repair, testing, overhaul and maintenance of equipment is performed. Specially designed rooms are included for testing and maintenance of audio sensitive equipment. Separate secure rooms are also provided for storage of items awaiting repair or issue and repair parts. A technical library should be provided where manuals, guides and resources can be maintained and utilized by personnel. When Logistics Support Building (LSB)/Warehouse is not contiguous with a health care facility, Satellite Biomedical Equipment Maintenance Service will be programmed in the health care facility.

Bulk Material Service (BMS): Provides space for receiving, inspection, storage, controlling, vaulted and caged areas, and is suing of bulk stocks of material and equipment to support projected requirements of the health care facility and satellite activities. Reserve and mobilization items require comparable environmental controls as specified for general storage. These items, other than those requiring rotation, may be stored in adequate warehouses on or off the installation. If adequate warehouse storage is not available, reserve and mobilization storage requirements may be projected within the Logistics Support Building (LSB). Storage computations in these cases will be based upon actual missions, programmed cubage, and required storage techniques. Special OSHA requirements for safety of personnel and necessary climate controls of temperature and humidity will be met.

Cart Holding Area: Provides space for pre-stocked supply and linen carts, including aisle space between carts to allow rapid movement of any cart in an emergency situation.

Cart Receiving Area: Provides space for checking and temporary holding of depleted carts returned from Health Care Points to be restocked.

Central Processing and Distribution: Consists of mobile shelving containing sufficient quantities of material (in units measure), including forms and office supplies to sustain operations within the health care facility between re-supply from Bulk Material Service. Also includes circulation area for movement of carts between shelves and restocking carts for use as back-up carts for emergency use or exchange cart service. May include areas for processing trash and re-usables and sanitation/sterilization of medical supplies (Central Sterile Supply).

Clean Linen Storage: Area where clean linen is stored for issue. This area should be located close to the loading dock. The factors for sizing these areas convert the General Storage NSF to net cubic feet (NCF) assuming a 16' stacking height in general storage. The 0.0035 (Clean Linen Storage) allowance factor is calculated against the General Storage NCF. To simplify the process, the NCF conversion and allowance factors have been consolidated into a single decimal calculation. This area should be separate from Soiled Linen Storage.

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Covered Dock: Area where bulk material and equipment is delivered. Adjustable ramp (dock leveler) and special lighting for night loading/unloading operations will be provided on this dock. If LSB is not contiguous with medical facility, program a separate dock at medical facility.

Customer Service Area: A dedicated area within Logistics Administration used for vendor, staff, and patient reception and inquiries. A desk and computer workstation should be provided to allow supply custodian research on supply items, logistics staff checks of vendor invoices/orders, and ordering/filling special patient needs for durable medical items, safety glasses, hearing aid batteries, etc as prescribed by a provider.

Dirty or Soiled Linen Storage: Area where soiled linen is stored in carts for shipment to the laundry. This area should be located close to the loading dock. The factors for sizing these areas include the number of carts anticipated and aisle space between carts to allow rapid movement. This area should be separate from Clean Linen Storage. Army facilities will also require a washer and dryer hookup.

General Storage Area: Consists of shelving, bins, carousels and pallets for storage of bulk material not requiring special handling and control. Adequate aisle space is included to provide movement of material handling equipment. Use of movable and prefabricated refrigerator and/or freezer systems provides maximum flexibility in use of storage space. Controlled Room Temperature maintained thermostatically between 15 and 39 degrees centigrade (59 and 86 degrees Fahrenheit) and relative humidity storage are required for drugs and other designated medical material. Refrigerator and/or freezer systems will consist of separate units collocated and connected separately to emergency power and alarm system. Lighting levels should be maintained at levels adequate for a 24-hour operational work environment. NSF allowance assumes that the warehouse will have a 12-foot stacking height. The aisle width in this area is to conform to the standard 25-foot forklift aisle.

Health Care Point: Area within using activity where supplies in unit of measure form are delivered and retained for use, preferably centrally located. If point of use systems are utilized, ensure space and utilities are adequate to support these systems.

Housekeeping Storage: Area for storing equipment and supplies used by custodial personnel and recharging equipment.

Linen Storage and Cart Restocking Area: Area within Central Processing and Distribution with carousels and mobile bins for storage of adequate stocks of clean linen, circulation area for movement of carts between bins and carousels and restocking carts for subsequent use. NFPA requirements for a 2-hour rated enclosure with a fire sprinkler system and linen security will be met.

Locker, Lounges, Toilets, and Showers: Area for toilet, shower, and locker space for personnel in clean area of Material Services, Biomedical Equipment Maintenance, Housekeeping and Plant Maintenance Services to change and store clothing plus adequate space and equipment in lounge for use as conference room. Separate lounge and conference areas will be delineated concurrent with labor union requirements. Contracted maintenance personnel may also have a need for a separate locker and shower area.

Material Breakdown Area: Area where packages of material are broken down to unit of measure quantities. This area needs to be sufficiently segregated from the general storage area to preclude overflow of storage into this area. The size of this area is determined by the quantity of supplies received.

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Material Distribution Service: Area where stocked carts are queued, controlled, and scheduled for delivery to designated Health Care Points, with the use of radios. Equipment that is usually required for temporary use is maintained and delivered by Material Distribution Service to Health Care Points on a recurring and on an as-required basis. Special delivery is provided by Linen and Housekeeping (may or may not be part of Material). Center for small quantities of material required in an emergency situation. Collection of soiled material and waste is accomplished by Material Distribution Center. This area will have direct access to service corridors and is contiguous to Cart Holding area. Typically, Pharmacy, Food Service and Central Sterile supply are performed by the owning service and not by Logistics.

Material Distribution Service Supervisor Office: Administrative space for manager of Material Distribution Service equipped for direct communication with each Health Care Point. This office is located adjacent to Cart Queuing and Dispatch Area and convenient to other elements of Material Distribution Service.

Plant Maintenance Service: Location of maintenance shops for support of all facilities maintenance with supporting administrative offices. It typically also includes parts storage, equipment storage, reference areas, flat file storage, CADD areas and locker facilities.

Service Dock: Area where bulk material and equipment is delivered. Adjustable ramp (dock leveler) and special lighting for night loading/unloading operations will be provided on this dock. If LSB is not contiguous with medical facility, program a separate dock at medical facility. The service dock must have two clearly defined areas: one for clean and one for soiled dock requirements. These two areas can not overlap.

Receiving and Processing Area: Provides space where detailed inspection of quantity and quality of material and equipment is accomplished, appropriate receiving reports are completed, and all items are sorted for delivery to appropriate storage location. This area is also where large equipment boxes and packing material are broken down and where large boxes of multiple items are divided into smaller quantities for placement on shelves.

Special Storage Area: Consists of all space required to store special portable equipment, secure areas, and properly ventilated space for soiled linen and trash. Includes specially constructed vaults for storage of controlled substances, including reserve and mobilization stocks, rooms for proper security and storage of sensitive items, separate storage of flammable anesthetics, oxidizing gases, acids, hazardous agents, and equipment awaiting disposition. The vaults will be constructed of reinforced concrete, or reinforced concrete masonry units, and also include intrusion devices as prescribed by the National Standards. Vault and caged areas need to be allocated within the Bulk Material Storage (BMS) for controlled and sensitive items. An emergency eyewash, shower, and drain will be adjacent to areas where volatile liquids and other chemicals are stored. Flammable storage room will include explosion-proof lighting and switches, exhaust fan and consist of a ramp over a raised door sill to preclude spread of flaming liquids in case of explosion. A separate storage room will be provided for flammables and one for oxidizing agents.

Uniform Services: Areas where clean duty uniforms are stored on a clothing rack and issued on an individual pick-up service basis. Repair of linens and garments may be accomplished in this area.

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5.2.3 POLICIES:

Type of Delivery System: The type of delivery system must be determined when planning space requirements. The categories of material delivery system are: (1) automated cart vertical lift; (2) automated cart vertical lift with horizontal movement; (3) automated vertical lift box conveyor; (4) automated vertical lift and horizontal movement box conveyor; (5) pneumatic chutes; and (6) manual transporters. The size and number of carts and number of personnel required will be determined in part by the type of delivery system to be implemented. Each facility and/or Medical Department must estimate the number of carts per unit based upon the proposed concept of operation (See Section 4.B). Automated cart delivery system will be justified on a cost/benefit basis. Dedicated single item delivery systems for rapid support for special items should be considered, (e.g., Pharmacy to Health Care Points). All entry/exit stations of automatic part systems for clean material must be in separate locations from soiled material access points. A backup mode of manual material handling must be available in the event of a breakdown in any automated component.

Trash and Soiled Linen Removal Systems: The method of transporting waste material and soiled linens from Health Care Points to appropriate central collection areas must be determined. Use of separate automated systems should be considered in transport of trash directly to bulk trash containers and linens directly to soiled linen rooms and must be justified on a cost/benefit basis. Access doors to these automated systems should be located in the Soiled Material Areas of Health Care Points. A manual soiled cart system will be used in all medical facilities where automated systems are not feasible. In this case, a trash compactor may be located in one Soiled Material Area on each floor to reduce the bulk of waste moved through the medical facility.

Medical material and the aforementioned services will be housed in a Logistics Support Building (LSB), which is less costly to construct than a medical facility, but contiguous to the medical facility to conserve personnel and funds. The LSB must be architecturally compatible with the main facility. When a LSB cannot be located contiguous to the medical facility, it will be necessary to include Central Processing and Distribution, Cart Holding and Receiving areas, and Satellite Housekeeping, Plant Maintenance, and Biomedical Equipment Maintenance Service areas in the medical facility. The Material Distribution Center, Cart Queuing, and Dispatch will always be in the medical facility.

Contractor's Lounge: Requirement for union contractors vary widely and need to be determined at each facility. The justification for the size of the lounge should be based on volume of work contracted at each facility.

5.2.4. PROGRAM DATA REQUIRED:

A. Programmed Facility Data

The Number of Beds in:

Main Facility

Satellites

The Number of Outpatient Visits in:

Main Facility

Satellites

The Staffing Summary

The area required for one year's worth of material branch files/record storage.

The area required for one year's worth of property management branch files/record storage.

Verify current area and quantity of items on hold for suspended recalled material pending disposition instructions.

Programming Calculations for Material Restocking System

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B. Cart Requirements:

Function	# of Units	x Carts/ Units	= Number of Carts
Nursing Units	_____	_____	_____
Intensive Care Unit	_____	_____	_____
Labor & Delivery	_____	_____	_____
Surgical Suite	_____	_____	_____
Case Cart? – Yes/No			
Emergency Rooms	_____	_____	_____
Treatment Areas	_____	_____	_____
(Cast Room, Trauma Room, OB/GYN Room, etc. All treatment cubicles equal 1 treatment Area)	_____	_____	_____
Ancillary Services (Radiology, Pharmacy, Lab, etc.)	_____	_____	_____
Clinics	_____	_____	_____
Totals (number of carts will be doubled for exchange cart system)	_____	_____	_____
Totals x 2 for Exchange Cart System			
Point of Use Cabinets and Carts	_____	_____	_____
Totals			

C. Transportation Work load: Function

Material Distribution Center _____
 Pharmacy _____
 Food Service _____
 Central Sterile Supply _____
 TOTAL _____

Par-level distribution systems: Par-level distribution systems require that areas be restocked based on use volumes and as such do not require additional carts beyond those required on each Unit. The impact of par-level requires additional carts at the point of distribution and not at the point of use.

Point of use system and cart requirements: Point of Use systems will require par level by the log tech determined on use volumes. Additional carts may be required based on the items stocked in the point of use systems and units available. Additional carts may be required based on quantities of floor stock items required by the user.

DoD Space Planning Criteria for Health Facilities

Logistics

5.2.5. SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Administrative Space Requirements			
Office, Director Logistics	9.29	100	Provide a private office, if FTE assigned.
Secretary, Visitor Waiting	11.15	120	Special justification required for more than one per service.
Material Staff Officer	9.29	100	
Office, Administration	9.29	100	100 nsf minimum or 60 nsf per FTE.
Office, NCOIC	9.29	100	
Safety Officer	9.29	100	If FTE assigned.
Physical Security Officer	9.29	100	If FTE assigned.
Conference Area / Library	11.15	120	Minimum. Add 10 nsf per FTE in excess of 10. 200 nsf max.
Office Automation Room	11.15	120	
Customer Service Area	9.29	100	Provide a 100 nsf office, if FTE assigned.
Material Branch			
Material Branch Officer	9.29	100	Provide a private office, if FTE assigned.
Office, Administration	9.29	100	100 nsf minimum or 60 nsf per tech. work station per FTE assigned.
Office, ADP Equipment	11.15	120	This room holds dedicated logistical computer systems, but can be deleted if a mainframe for Logistics is located within the Information Systems area. Add an additional 0.5 nsf per bed for hospitals greater than 200. Add an additional 5 nsf per 10,000 nsf for clinics greater than 60,000 nsf.
Files/Record Space	5.57	60	Minimum. Compute based on the following formula. NSF = (1 year’s worth of files nsf) x 3.
Property Management Branch			
Property Management Officer	9.29	100	Provide a private office, if FTE assigned.
Office, Administration	9.29	100	100 nsf minimum or 60 nsf tech. work station per FTE assigned.
Files/Record Space	4.65	50	Minimum. Compute based on the following formula. NSF = (1 year’s worth of files nsf) x 3.
Service Branch Office(s)	9.29	100	For additional FTE that require a private office.
	5.57	60	For additional FTE that do not require a private office.

DoD Space Planning Criteria for Health Facilities

Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

Property Management Branch (Continued):		
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Purchasing Branch	11.15	120	Minimum.
Central Alarm Room	11.15	120	Verify if required. Provide in either this Section or Section 2.4, but not both.
Fire System Control Room	11.15	120	Verify if required.

Docks		Verify the need for lift capability and program and build into loading dock area.
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Service dock – Clinics	10.22	110	Per loading dock bay. 1 per clinic. Provide two separate areas: one for clean and one for soiled requirements.
Loading dock – Clinics	10.22	110	One loading dock bay. 1 per clinic less than 80,000 GSF. 1 additional dock for clinics greater than 80,000.
Hospitals and Medical Centers			See below. Provide two separate areas: one for clean and one for soiled requirements.

Number of loading docks for Hospitals and Medical Centers	Material supplies	general	food service
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Less than 100 beds	2	1	1
100-200 beds	3	1	2
200-300 beds	4	2	2
300-400 beds	5	2	3

Receiving Areas		
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Receiving & processing	37.17	400	Minimum nsf, maximum 1,800 nsf. 0.25 nsf per 1,000 nsf of space in general and special storage areas.
Satellite Material Receiving/Sorting	9.29	100	Minimum if LSB is not contiguous to the health care facility.

DoD Space Planning Criteria for Health Facilities

Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
General Storage Areas			
Medical and Non-Medical Supplies			Compute based on the following formula: nsf = (20 x beds) + (0.035 x annual outpatient visits). This space represents total net storage requirement and should not be reduced during grossing. NSF allowance assumes a 12-foot stack height. Area will decrease proportionally for areas with higher stacking heights and increase proportionally for areas with lower stacking heights. A separate study is required for areas that will use an electronic retrieval system.
Equipment Holding	18.58	200	Minimum. Add 10 nsf of area for every 1000 nsf of general storage over 5,000.
Equipment Storage	18.58	200	Minimum. Add 10 nsf of area for every 1000 nsf of general storage over 5,000.
Special Storage Areas			
Secure Storage	3.72	40	Minimum. General Storage Total nsf x 0.025. Space should be in a caged area.
Vault Storage	3.72	40	Minimum. Verify with chief officer if controlled substance and other high priority storage items exist. General Storage Total nsf x 0.01.
Satellite Secure Storage	3.72	40	Minimum. If LSB is not contiguous with the medical facility, program satellite security at 20 nsf per 150 beds within med. Facility + .005 nsf x annual outpatient visits. In addition to Secure Storage above.
Waste Sterilization Unit	9.29	150	Minimum. Gen. Storage Total nsf x .010. San-I-paks are typically located under cover outside in temperate climates and would not be calculated in the building nsf.
Satellite F/H	10.22	110	Minimum. If LSB is not contiguous with the medical facility, program satellite flammable/hazardous storage within medical facility.
Acid	4.65	50	Minimum within med. Facility. Size based on a study of the actual need of the facility.
Satellite	18.58	200	If LSB is not contiguous with the facility, program satellite Storage equipment within health care facility.

DoD Space Planning Criteria for Health Facilities

Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Special Storage Areas (Continued)			
Gas Cylinders	18.58	200	Two enclosures (one for full cylinders and one for empty cylinders) at 100 nsf each, min. Maximum 600 NSF. 1 nsf per bed + .0025 nsf x annual outpatient visits.
Warehouse Supervisor	9.29	100	Provide within a medical facility. Clinical facilities may not require the space. Based on approved personnel.
Storage and assembly area for aircraft first aid kits	3.72	40	Minimum. 20 nsf per 100 kits maintained (verify if mission assigned).
Holding area for suspended recalled material pending disposition instructions	9.29	100	Minimum. One per logistics area, verify if mission assigned. Look at current area and quantity of items on hold.
Biomedical Eq. Maintenance Service			
Office, Chief, Biomedical	9.29	100	100 nsf for each 1 authorized officer.
NCOIC	9.29	100	Provide one, where FTE authorized.
Administration, employees	5.57	60	Provide one 60 nsf tech. work station per FTE authorized.
Files/Record Space	4.65	50	For up to 200-bed facility. Add 5 nsf per 100 beds over 200. Where regional responsibilities exist, include beds for satellite activities in computing space.
Reference Library	4.65	50	Minimum. Provide up to a maximum of 200 nsf, based on the property book value.
Workstations/Common Use Work Space	13.94	150	Minimum. Provide 150 total nsf per technician.. Less than 7 techs, assume less than 200 beds. More than 10 techs, assume over 300 beds.
Parts Room	18.58	200	Minimum, or 2 nsf per bed + .0035 x annual outpatient visits. Where regional responsibilities exist, include beds for satellite activities in computing space.

DoD Space Planning Criteria for Health Facilities

Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Biomedical Eq. Maintenance Service (Continued)			
Equipment Holding Area	18.58	200	For up to 100-beds + .0035 nsf x annual outpatient visits. Add 50 nsf for facilities with 100 to 200 beds. Where regional responsibilities exist, include beds for satellite activities in computing space required. Space not required for facilities with 3 or less technicians authorized.
Electronics Repair/ Calibration Room	13.00	140	Minimum. Add an additional 80 nsf per additional 100 beds over 200 beds. Plus .002 nsf x annual outpatient visits. Where regional responsibilities exist, include beds for satellite activities in computing space required. Space not required for facilities with 3 or less technicians authorized.
Equipment Receiving Area	12.08	130	Provide for facilities with at least 200beds. Add 25 nsf per additional 100 beds over 200 beds. Where regional responsibilities exist, include beds for satellite activities in computing space required.
If LSB is not located contiguous to the medical facility, program the following in the medical facility:			
Workstation	9.29	100	Within medical facility.
Storage	9.29	100	Within medical facility.
Equipment Holding Area	9.29	100	Within medical facility.
Staff Lockers, Toilets and Lounges			
			See Section 6.1.
Linen Control			
Office Space	9.29	100	Minimum. 60 nsf per additional authorized employee.
Clean Carts Storage		varies	10 nsf times 25% of total linen carts. Space may not be needed in a clinic with no CPD. Clinical settings may only need a clean linen room and a dirty linen room.
Clean Linen Storage	9.29	100	Minimum: nsf = 0.056 x general storage nsf
Seamstress Work area	9.29	100	Minimum – 100 nsf per seamstress where authorized.
Seamstress Storage	9.29	100	Max.
Soiled Linen	9.29	100	Minimum: nsf = 0.024 x general storage NSF

DoD Space Planning Criteria for Health Facilities

Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Uniform Service			
Clothing Storage	11.15	120	Minimum. Add 0.5 nsf per bed over 120, maximum 360 nsf. A separate study is required for areas that will use a rack storage or an electronic conveyor storage system.
Workstation	9.29	100	
Linen Folding	9.29	100	Minimum
	13.94	150	100-200 beds
	18.58	200	201-300 beds
	27.88	300	300+ beds
Central Processing and Distribution			
Supervisor Office Space	9.29	100	
Cart Holding Area	.93	10	Times 40% of total carts used for material distribution plus 4 spaces for emergency carts.
Cart Receiving/ Sorting Area	.93	10	Times 5% of total carts used for material distribution
Material Storage and Cart Restocking Area	.93	10	Times 2% of total carts used for material
Storage	9.29	100	Per 1,000 NSF of space in medical supply general storage area.
Material Distribution Center			
Supervisor and Control Panel	9.29	100	Minimum .60 nsf for each additional authorized employee.
Cart Queuing and Dispatch Area	.93	10	Times 5% of total carts in the distribution system (Pharmacy, Food Service, and Central Sterile supply carts included if not on dedicated system).
Trash	18.58	120	Minimum + 1 nsf per bed over 200.
Facility Manager			
Reception/Work Order Area	11.15	120	
Manager's Office	9.29	100	
Assistant Manager's Office	5.57	60	Minimum. 60 nsf for each FTE assistant.
Engineering Technicians	5.57	60	Minimum. 60 nsf for each FTE assistant.
CADD Room	5.57	60	Per CAD workstation, plus 40 nsf for plotter.

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Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Facility Manager (Continued)			
File Storage Room	11.15	120	Add an additional 80 nsf for clinics over 100,000 gsf, or facilities over 200 beds.
Key Making and Key Storage Room.	11.15	120	Allow 100 nsf for workstation area, plus 20 nsf for storage. Add an additional 80 nsf for facilities over 200 beds, or outpatient clinics over 80,000 gsf..
ID Badge Photo Area	9.29	100	Minimum. 20 additional nsf for each 10,000 gsf of building total over 80,000 gsf.
Bench Stock Storage	14.869	160	For clinics. Add 40 nsf for clinics over 80,000 gsf.
	29.73	320	For AHCC's/small hospitals.
	44.95	480	For medical centers.
Plant Maintenance			
Chief, Civil Engineer Foreman	9.29	100	
Files & Record Space	9.29	100	
General Workstation Area w/tools and benches	11.15	120	For the first three repairmen. Add 40 nsf for each additional person above three.
Contractors' Office Area	11.15	120	Minimum, add 60 nsf for each additional administrative contract employee.
Common Use Space	18.58	200	Minimum. 1 nsf per bed. Open floor area for repair usage.
Hazardous Material Storage	8.36	90	For facilities up to 200 beds and clinics up to 80,000 gsf.
	10.68	115	For facilities up to 300 beds and clinics greater than 80,000 gsf. Add 25 nsf for each additional 100 beds over 300.
Repair Parts Room	22.30	240	For facilities up to 100 beds, or for clinics (if service provided) up to 80,000 gsf.
	33.44	360	For facilities up to 200 beds, or clinics greater than 80,000 gsf.
	44.61	480	For facilities up to 300 beds. Add 120 nsf for each additional 100 beds.
Equipment Receiving	18.58	100	For facilities up to 100 beds and clinics (if service provided).
	18.58	200	For facilities up to 200 beds. Add 100 nsf and Holding Area for each additional 100 beds.

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Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Plant Maintenance (Continued)			
Grounds Maintenance. If LSB is not located contiguous to the medical facility, program office and file space in the medical facility, the remainder in the LSB	9.29	100	This area to be used only for facilities that contract ground maintenance services. For in-house services: see below.
	18.58	200	For facilities up to 200 beds and clinics up to 60,000 gsf.
	27.87	300	For facilities over 200 beds and clinics over 60,000 gsf.
Housekeeping Service			
Office, Supervisor	9.29	100	
Equipment and Supplies Storage	11.15	120	Up to 200 beds, or clinics up to 60,000 gsf.
	27.87	300	Up to 300 beds, or clinics greater than 60,000 gsf.
	46.45	500	Over 300 beds.
Equipment Charging Room If LSB is not contiguous to the medical facility, program housekeeping within the medical facility.	15.80	170	
Contractor’s Lounge	11.15	120	Verify specific contract requirements with facility supervisor. Justification based on how the work is contracted.
Contractor’s Office	9.29	100	Verify specific contract requirements with facility supervisor. Justification based on how the work is contracted.
Contractor’s Storage	9.29	100	Verify specific contract requirements with facility supervisor. Justification based on how the work is contracted.

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Logistics

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Optical Fabrication Service (Optional)			
Chief	9.29	100	
Clerks	9.29	100	Minimum, or 60 nsf per authorized over 1.
Work Space	9.29	100	Per authorized optical worker.
Parts Storage Room	9.29	100	
Personnel ESCORT Service (Optional)			
Office Space	8.36	90	For Chief
Waiting Space	8.36	90	Minimum + 20 nsf per authorized employee over 4

Contractor's Lounge, storage and office: Justification based on how the work is contracted.

Bulk War Reserve Material Storage: This is only for facilities that have a dedicated War Reserve Material mission. This space does not have to be in the MTF. All or a portion of the building may require environmental controls.

NSF = $\frac{\text{Total Cube} \times 1.3 \times 2}{\text{Stacking Height}}$

Forklift aisle width: 25-feet.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

5.4.1. PURPOSE AND SCOPE:

This section specifies the space planning criteria for the Radiology, Radiotherapy, and Nuclear Medicine Service in DoD medical facilities.

The Radiology Department as used in this criteria includes all diagnostic imaging modalities (i.e. Radiology, Fluoroscopy, Computed Tomography, Magnetic Resonance Imaging (MRI), Ultrasound, etc.). Criteria is provided for the radiology service and for satellite locations such as emergency medicine, orthopedics, etc. It does not include such systems as cardiac catheterization and urological systems normally found in other departments. These systems will be found in the space planning criteria for the applicable department.

The Radiotherapy Department in this criteria includes all treatment modalities (i.e. Linear Accelerator, etc.).

The Nuclear Medicine Service includes provision of space for specialized measurement equipment and environments necessary to use radioisotopes in the diagnosis and treatment of patients.

5.4.2. DEFINITIONS:

Radiology:

Angiography System - A specialized radiographic/fluoroscopic system with expanded capabilities for performing angiography procedures.

Computed Radiography (CR) - Using a traditional exposure unit that uses film, a special reusable cassette captures the image and a CR reader unit digitizes the image and sends it to the appropriate workstation or to storage.

CT Scanner - A Computed Assisted Tomography Scanner (CT) is an x-ray system that produces an axial (cross sectional) image of the anatomy being studied. The CT image is a computer calculated composite of numerous short exposures taken from various angles in a circle around the anatomy of interest. As the image is computer calculated, an image or a series of images may be manipulated to produce different views of the area of interest and to "window" out interfering structures such as bone. The "window" capability allows the radiologist to selectively view either dense tissues such as bones or to view diffuse tissues such as the heart or brain.

Direct Radiology - An image is taken, verified and transmitted within the exposure room (R/F rooms).

Diagnostic Radiology - There are three general systems grouping, although these may be mixed:

1. A film based system with darkrooms and film storage has been the conventional system.
2. A totally digital system is one in which the radiology exposure device generates a digital image that can be:
 - a. read as a digital image or stored in digital form immediately, or
 - b. stored "film" (hard-copy).
3. A computed radiology system is one in which a special cassette is substituted for the film cassette. This special cassette is then placed in a CR reader and a digital image is generated.

Diagnostic Room - Any room in the Radiology Department containing imaging equipment such as radiographic, radiographic/fluoroscopic, MR, angiography, CT, ultrasound system, etc.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

Digital Radiography - The capture or conversion of radiography images in a digital format.

General Purpose Radiograph - A radiographic system designed primarily to perform general radiographic procedures.

Magnetic Resonance Imaging (MRI) - is a technique to produce computer calculated images of human anatomy using a very high strength magnetic field. The scanner gantry incorporates a high strength magnet, radio frequency transmission coils, and signal acquisition coils.

Picture Archiving and Communications System (PACS) - A PACS consist of workstations for interpretation; imaging modalities that gather Radiography, Fluoroscopy, Angiography, Ultrasound, Nuclear Medicine, CT, and MRI data; a web server for distribution; printers for film (which must still be generated, in limited amounts, for the use of those without access to the network); image servers to transfer and hold information within the PACS; an archive of off-line information. A network is needed to reach each of these devices.

Radiographic/Fluoroscopic System - A system designed to produce radiographs or real time motion, plus real time images via direct viewing or a television monitor. The real time images can be recorded for later viewing.

Specialized Radiographic System - A radiographic system designed primarily to perform a specific type of radiographic procedure.

- a. **Dedicated Chest System** - A radiographic system designed to perform upright chest examination.
- b. **Tomography System** - A radiographic system designed to perform laminography studies. This is an option to a radiographic/fluoroscopic room.
- c. **Mammography System** - A radiographic system designed primarily to perform mammographic examinations.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

Nuclear Medicine (the following terms are generally used in reference to Nuclear Medicine and Radiotherapy services):

Cold- Refer to an area, which should be free of radiation. The designations of hot and cold are made to separate potentially radioactive patients from other patients.

Bone Densitometer - measure bone mineral density. It will also compare this measurement to a reference population based on age, weight, sex, and ethnic background.

Dosimetrist - A member of the radiation oncology team who has knowledge of the overall characteristics and clinical relevance of radiation oncology treatment machines and equipment, is cognizant of the procedures commonly used in brachytherapy and has the education and expertise necessary to generate radiation dose distributions and dose calculations in collaboration with the medical physicist and the radiation oncologist.

Dual Photon Bone Mineral Absorptiometry Scanning Room - Room for performing bone densitometry (osteoporosis tests).

Hot- Refers to an area where radiation may be present. For example a “hot” toilet is reserved for patients who have been given a radioactive substance and who are considered radioactive themselves. There are also “hot” waiting rooms. (See Cold).

Linear Accelerator (LINAC) - In the health care setting, a linear accelerator is the device most commonly used for external beam radiation treatments for patients with cancer. It delivers a uniform dose of high-energy x-ray to the region of the patient’s tumor. These x-rays can destroy the cancer cells, while sparing the surrounding normal tissue. The linear accelerator uses microwave technology to accelerate electrons and then allows these electrons to collide with a heavy metal target. As a result of these collisions, high energy x-rays are scattered from the target. A portion of these x-rays is collected to form a beam that matches the size and shape of the patient’s tumor. The beam comes out of a part of the accelerator called a gantry, which rotates around the patient.

Nuclear Medicine - A medical specialty that uses liquid and gaseous radioactive materials (or radiopharmaceuticals) to diagnose and treat various conditions. Nuclear Medicine is also the diagnostic (in vivo and in vitro) and therapeutic use of unsealed radioisotopes (gasses and liquids).

Radiopharmaceuticals- Pharmaceuticals that have a radioactive component. These localize in the body based on their physical or chemical properties. The radiopharmaceuticals used in diagnostic nuclear medicine emit gamma rays that can be detected externally by special types of cameras: gamma or TET cameras. Therapeutic nuclear medicine uses substances that emit beta radiation which can kill targeted cells within the body.

Radiotherapy – also called radiation therapy, is the treatment of cancer and other diseases with ionizing radiation. This is a high-energy ray, usually x-rays, used to kill cells, usually cancer cells.

Positron Emission Tomography (PET)- Produces high energy, 3-D computer-reconstructed images measuring and determining the function or physiology in a specific organ, tumor, or other metabolically active site.

Picture Archiving and Communications System (PACS) - A PACS consist of workstations for interpretation; imaging modalities that gather Radiography, Fluoroscopy, Angiography, Ultrasound, Nuclear Medicine, CT, and MRI data; a web server for distribution; printers for film (which must still be generated, in limited amounts, for the use of those without access to the

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

network); image servers to transfer and hold information within the PACS; an archive of off-line information. A network is needed to reach each of these devices.

Scanning Rooms - "Scanning room" is a generic term used in nuclear medicine for programming purposes. The specific type of scanning equipment, i.e., gamma scintillation camera or PET camera may be included within the same area. Note that scanning is a widely used term and that there are other procedure that are not in nuclear medicine that are scanning procedures - CT Scanners, MRI are examples.

Thyroid Uptake Room - This room is specifically assigned to use isotopes to study problems of the thyroid gland.

5.4.3. POLICIES:

Radiology:

The radiology department (diagnostic radiology, radiotherapy and nuclear medicine) should be collocated.

A Cardiac Catheterization Laboratory can also perform angiography procedures. Under special study, a combined radiographic/fluoroscopic/angiographic room may be programmed for special procedures including the production of single plane angiography.

Mobile x-ray equipment storage areas will not normally be provided in the Radiology department. This equipment should be stored in the area where it is used.

5.4.4. PROGRAM DATA REQUIRED:

Diagnostic Radiology:

Use programmed workload or procedures.

Chest Procedures

Fluoroscopic Procedures

Angiographic Procedures

Mammography Procedures

Portable Procedures

Ultrasound Procedures

Computed Tomography Procedures

MRI Procedures

Total X-Ray procedures

Number of yearly intracranial procedures (neurosurgery)

Teaching facility?

Radiologic Technology Training?

Radiology residency?

Ultrasound Technology Training?

Mammography Technology Training?

Staffing (include residents and students).

Cardiac Catheterization authorized?

If yes, then how many angiographic procedures are expected to be performed by the Cardiac Catheterization lab?

MRI authorized?

Number of MRI procedures?

Total Annual RIA Procedures?

What are the number of FTEs accomplishing transcription within the radiology department?

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Radiology and Nuclear Medicine

Radiotherapy:

Radiotherapy authorized?
Staffing (include residents and students).

Nuclear Medicine:

Total annual number of nuclear medicine procedures:
a. diagnostic procedures?
b. therapeutic procedures?
Total yearly Nuclear Medicine visits?
Staffing (include residents and students).
Total annual number of bone densitometry procedures?
Nuclear Medicine Technology Training?

Note to Programmer: A decision is required concerning the type of system that will be used in the radiology service. There are three general systems grouping, although these may be mixed. A film based system with darkrooms and film storage has been the conventional system. A totally digital system is one in which the radiology exposure device generates a digital image that can be read as a digital image or stored in digital form immediately. A computed radiology system is one in which a special cassette is substituted for the film cassette. This special cassette is then placed in a CR reader and a digital image is generated.

5.4.5. SPACE CRITERIA:

Toilets, Lounges and Locker Areas: The criteria for toilets, lounges and locker rooms is provided in a separate section, Section 6.

Administrative Offices: The office space required to provide administrative support to operate the clinic services will be provided in accordance with criteria for administration in Section 2.1.

RADIOLOGY:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS			
Waiting Room	18.58	200	Hospital minimum. +80nsf for each additional Diagnostic Room greater than 3.
	9.29	100	Clinic minimum. +80nsf for each additional Diagnostic Room greater than 3.
Clinic Reception /Control Center	13.01	140	One per Radiology service. Provide an additional 140 nsf for every additional 8 FTE providers greater than 8.
Public Toilet - Male (water closet, lavatory, urinal)	11.15	120	Minimum. Add 10 NSF per male over 10. 200 nsf maximum. See Section 6.1.
Public Toilet - Female (water closet, lavatory)	9.29	100	Minimum. Add 10 NSF per female over 10. 200 nsf maximum. See Section 6.1.

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Radiology and Nuclear Medicine

RADIOLOGY (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
PATIENT AREAS (Continued)			
Dressing Cubicle	4.65	50	Minimum per cubicle. 1 per Diagnostic Room.
Linen Alcove	.93	10	1 per Diagnostic Room.
Dedicated Patient Toilet (wc, lav)	5.57	60	1 per Diagnostic Room, except mammographic, angiographic and radiographic rooms. See Section 6.1.
Patient Subwaiting Area	5.57	60	1 per each radiographic exposure room.
STAFF AND SUPPORT AREAS			
Provider’s Office	11.15	120	One per provider FTE programmed.
NCOIC/LCPO/LPO	11.15	120	1 per clinic.
Clinic Conference / Classroom	20.90	225	One per clinic.
Litter and Wheelchair Storage	2.32	25	1 per Diagnostic Room.
Clean Supply & Equipment Area	9.29	100	Minimum per department. Provide a minimum of 100 nsf or 40 nsf per diagnostic room, whichever is greater, in a combined clean supply & equipment room. Maximum of 200 nsf.
Soiled Utility	11.15	120	One per clinic.
Dedicated Radiology Janitors’ Closet	5.57	60	One for 10,000 nsf or one for radiology dept., whichever is greater. See Section 6.1.
Staff Radiologist	11.15	120	One per programmed FTE Radiologist.
Clerical	5.57	60	Minimum. 60 nsf per clerical FTE programmed.
Quality Assurance	9.29	100	One when FTE programmed.
Mammography Scheduler/Tracking Office	9.29	100	One per radiology clinic with mammography services.
Transcription work area	5.57	100	Minimum, if one per FTE programmed. Provide 60 nsf for each FTE if greater than one.
Staff Lounge	13.01	140	Minimum. Add 10 NSF per each FTE staff over 10. 200 NSF maximum.
Staff Locker Rooms:			
Male	9.29	100	Minimum. See Section 6.1.
Female	9.29	100	Minimum. See Section 6.1.
Staff Toilets:			
Male	5.57	60	Minimum. See Section 6.1.
Female	5.57	60	Minimum. See Section 6.1.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOLOGY (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

DIAGNOSTIC ROOMS			
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Xray, Radiographic	29.73	320	Space per general radiology room. see formula section 5.4.6 to determine number of rooms.
Xray, Radiographic/Fluoroscopic	29.73	320	Per room authorized.
Dedicated Toilet	5.57	60	One per Radiographic/Fluoroscopic room.
Xray, Angiographic	54.72	590	Per room authorized.
Patient Prep Cubicle	11.15	120	Two per angiographic room.
Angiographic/Procedure Room	83.61	900	Special justification required. To be used only when the angiographic room will also be used for procedures.
Control Room	9.29	100	Minimum. Add 80 nsf per exposure room over one.
Mammographic	11.15	120	Space per mammography room. See formula section 5.4.6 to determine number of rooms.
Mammographic Processing Room	10.4	110	Minimum of one. One per 1-2 mammographic rooms.
Ultrasound	16.72	180	Space per ultrasound room. See formula section 5.4.6 to determine number of rooms.
Dedicated Ultrasound Toilet	5.57	60	One per ultrasound room.

COMPUTED TOMOGRAPHY			
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CT Scanning Room	27.87	300	Space per each scanning room. See formula section 5.4.6 to determine number of suites.
Control Room	11.15	120	One per scanning room. Includes computer equipment.
Independent Display Console	11.15	120	One per scanning room.
Sub-waiting	5.57	60	One per scanning room.
Patient Prep Cubicle	11.15	120	One per scanning room.
Med Prep.	5.57	60	One per scanning room.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOLOGY (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
MAGNETIC RESONANCE IMAGING (MRI)			
PATIENT AREAS			
Reception/ Administration	9.29	100	One per MRI suite.
Scanning Room	46.46	500	Space per scanning room. See formula section 5.4.6 to determine number of suites.
Computer Room	13.94	150	One per scanning room.
Control Room	9.29	100	One per scanning room.
Dressing Booth	4.65	50	Provide 2 booths per scanning room.
Sub-waiting	5.57	60	One per every two scanning room.
Patient Toilet	5.57	60	One per every two scanning room.
STAFF AND SUPPORT AREAS			
Physician's Viewing Room	13.94	150	One per MRI suite.
MRI Gas Storage (Cryogen Storage)	5.57	60	One per MRI suite.
Equipment Room	26.01	280	One per MRI suite.
Litter Storage Alcove	3.72	40	One per MRI suite.
Soiled Linen Alcove	.93	10	One per MRI suite.
Storage	3.72	40	One per MRI suite.
Darkroom	11.15	120	1 per radiology service. Includes replenisher tanks storage. Required if any conventional (film based) radiology is included.
Film Sorting Area	13.94	150	1 area per darkroom.
Film Files/Work Area	23.23	250	Minimum of 1 per radiology service. Required if any conventional (film based) radiology is included. Add 50 nsf for each “film” exposure room in excess of four.
Computed Radiology Reader Area	11.15	120	1 per radiology service with computed radiology.
Film Storage	16.72	180	Minimum. 180 nsf or 1 NSF per every 10 patient records maintained, whichever is greater. Provide for non-digital radiology service only.
Digital Quality Control Station	11.15	120	1 per radiology service using digital or computed radiology.
Digital Image Storage	18.58	200	200 nsf minimum or provide 10 nsf per exposure unit. This may be located in Section 2.4: Information Management. Locate in either 2.4 or 5.4, but not in both departments.
Viewing/Consultation:			Size of viewing area is the same for film or digital viewing.
Non-teaching	11.15	120	Minimum. Provide one per two exposure rooms.
Teaching	23.23	250	Minimum or 60 NSF per exposure room, whichever is greater.
Tele-Radiology	20.90	225	Justification required. Add additional 100 nsf if separate computer workroom required.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOLOGY (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
<u>TEACHING SUPPORT</u>			Space provided only if the medical facility has an authorized radiology residency.
Director of Radiology Residency	11.15	120	One per director of radiology residency program.
Secretary to Director with visitor waiting.	11.15	120	One per Director of Radiology Residency program, if there is a programmed FTE secretary position.
Residency Research Technician	11.15	120	One per program, when there is a programmed FTE position.
Radiology Residency Coordinator	11.15	120	One per Radiology Residency Program Coordinator if there is a programmed FTE.
Radiology Resident's Office Space	11.15	120	Minimum. 60 nsf per programmed resident.
Instructor Office	11.15	120	Residency Program Required, one per FTE programmed. Residency program and/or Phase II technician teaching program required.
Technician Training Office	11.15	120	Residency Program Required, one per FTE programmed. Phase II training program required.
Teaching Files	27.87	300	Residency Program Required.
Residency Library	22.29	240	One per Residency Program.
On Call Room	11.15	120	Residency Program Required.
Toilet (wc, lavatory, shower).	8.36	90	Minimum. See Section 6.1.
Conference Room	37.16	400	One per Radiology Residency Program. Residency program and/or Phase II technician teaching program required.
Resident/Phase II Locker Room		varies	See Section 6.1. Residency program and/or Phase II technician teaching program required.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOTHERAPY:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
PATIENT AREAS			
Reception/Control	13.01	140	One per Radiotherapy service.
Waiting Room “Hot”	11.15	120	Minimum. Add 40 nsf for every Treatment room, Simulator and Therapy Planning room in excess of 3.
Waiting Room “Cold”	11.15	120	Minimum. Add 40 nsf for every Treatment room, Simulator and Therapy Planning room in excess of 3.
Examination Room	11.15	120	Minimum of 2 for up to 200 new patients per year. Add 1 room for each additional 200 new patients per year.
Public Toilet - Male (water closet, lavatory)	5.57	60	Minimum See Section 6.1.
Public Toilet - Female (water closet, lavatory)	5.57	60	Minimum See Section 6.1.
Sub-waiting	7.43	80	If used, subtract 80 NSF from the total waiting area for Radiation therapy area. Place adjacent to the treatment spaces.
Dressing Cubicle	4.65	50	2 per treatment or simulator room.
Soiled Linen Alcove	.93	10	1 per examination room.

STAFF AND SUPPORT AREAS			
Provider’s Office	11.15	120	One per provider FTE programmed.
NCOIC/LCPO/LPO Office(s)	11.15	120	2 NCOIC's: one for radiation oncology and one for medical physics, if FTEs programmed.
Resident Offices	11.15	120	1 per programmed trainee.
Staff Radiotherapists	11.15	120	1 per radiotherapist programmed.
Physicist Office	11.15	120	One office per physicist FTE.
Nurse Manager’s Office	11.15	120	1 per nurse manger FTE programmed.
Chief Technician	11.15	120	1 per senior technician FTE programmed.
Clerical	5.57	60	Minimum. 60 nsf per clerical FTE programmed.
Dosimetrist Workroom	27.87	300	1 per radiation therapy service if a radiation oncologist FTE programmed.
Radiology Safety Files	9.29	100	Minimum per radiology service. Add 20 nsf for each physicist FTE.
Patient Record Storage	16.72	180	Minimum. 180 nsf or 1 NSF per every 10 patient records maintained, whichever is greater.
Equipment Storage	11.15	120	1 per clinic.
Film File Room	16.72	180	One per radiation therapy service.
Viewing/Consultant	16.72	180	1 per clinic.
Staff Lounge	13.01	140	Minimum. Add 10 NSF per FTE staff over 10. 200 NSF max.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

RADIOTHERAPY (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

STAFF AND SUPPORT (Continued)			
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Staff Locker Rooms		varies	See Section 6.1.
Staff Toilets		varies	See Section 6.1.
Clinic Conference / Classroom	20.90	225	One per clinic.
Litter and Wheelchair Storage	5.57	60	One per clinic.
Soiled Utility	11.15	120	1 per clinic.
Clean Utility	5.57	60	1 per clinic.
Janitors' Closet	5.57	60	One for 10,000 nsf or one for radiotherapy dept., whichever is greater. See Section 6.1.

TREATMENT ROOMS			Requires special approval. Number and type of treatment rooms will be determined on an individual basis.
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Linear Accelerator:	55.74	600	Justification required for this service.
Control Area	12.08	130	One per linear accelerator.
Entrance Maze	13.01	140	One per linear accelerator. <i>Note: Maze design may be omitted with the use of a specifically designed, shielded sliding door.</i>
Auxiliary Equipment Room	12.08	130	Control Area 130 Control area has same comments as above except control has more electronics and a computer CPU.

Simulator:	37.16	400	Justification required for this service.
Control area	10.22	110	Control area needed for scanning fluoro. as well as personnel protection. Space needed for computer console and CPU.

TREATMENT SUPPORT			
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Treatment Planning Room	23.23	250	One per simulator service.
Brachytherapy Room	11.15	120	One per suite.
Radiologic Physics Lab	27.87	300	One per suite.
Film Processing	11.15	120	One per radiologic physics lab.
Workroom/Mold Fabrication	20.44	220	One per physics lab.
Image Support:			
Non-teaching	11.15	120	Minimum. Provide one per two exposure rooms.
Teaching	23.23	250	Minimum or 60 NSF per exposure room, whichever is greater.
Tele-Radiology	20.90	225	Justification required. Add additional 100 nsf if separate computer workroom required.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

NUCLEAR MEDICINE:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

PATIENT AREAS

Waiting Room “Hot”	9.29	100	Minimum. Add 16 nsf for each additional imaging room above six.
Public Toilet – Unisex (water closet, lavatory)	5.57	60	Minimum See Section 6.1. One per “Hot” waiting area.
Waiting Room “Cold”	11.15	120	Minimum. Add 16 nsf for each additional imaging room above six.
Public Toilet Unisex (water closet, lavatory)	5.57	60	Minimum See Section 6.1. One per “Cold” waiting area.
Patient Holding Alcove	9.29	100	1 per clinic.
Dressing Cubicle	4.65	50	1 per 4 imaging rooms. Minimum of 1 cubicle.
Patient toilet (wc, lav., shower)	5.57	60	2 per clinic. Design as hot toilet.

SCANNING ROOMS

General Scanning	33.45	360	Collimator cart storage included
Special Scanning	37.16	400	This space is adequate for dynamic cardiac studies and tomographic systems.

STAFF AND SUPPORT AREAS

Provider’s Office	11.15	120	One per provider FTE programmed.
NCOIC/LCPO/LPO	11.15	120	1 per clinic.
Resident Office	11.15	120	1 per programmed trainee.
Nuclear Med. Physician Office	11.15	120	One per FTE programmed.
Director, Radio-immunoassay Laboratory Office	11.15	120	For labs performing over 30,000 procedures per year.
Physicist Office	11.15	120	1 per clinic with 4 or more scanning rooms.
Radio-pharmacist Office	11.15	120	One per FTE programmed.
Chief Technician	9.29	100	One per clinic when FTE programmed.
Secretary, Visitor Waiting	11.15	120	Special justification required for more than one.
Clerical	5.57	60	Minimum. 60 nsf per FTE programmed.
Records/Film Storage	16.72	180	Minimum. 180 nsf or 1 NSF per every 10 patient records maintained, whichever is greater.
Clinic Conference / Classroom	13.94	150	NSF minimum. or 20 per Nuclear Med. officer FTE programmed. For small clinics (less than 3 officers assigned), function could be met by adding 40 nsf to Lounge.
Clean Supply & Equipment Area	9.29	100	Minimum per department. Provide a minimum of 100 nsf or 40 nsf per diagnostic room, whichever is greater, in a combined clean supply & equipment room. Maximum of 200 nsf.

DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

NUCLEAR MEDICINE (Continued):

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	

STAFF AND SUPPORT AREAS (Continued)

Hot locker/Dose Calibration	9.29	100	1 per clinic. Provide only if there is no radiopharmacy in the facility.
Soiled Utility	11.15	120	One per clinic.
Equipment Storage	18.58	200	One per scanning room.
Staff Lounge	13.01	140	Minimum. 200 maximum. Add 10 NSF per FTE staff over 10.
Staff Toilets		varies	See Section 6.1.
Staff Showers		varies	Combine with toilets. See Section 6.1.
Staff Lockers:			See Section 6.1.
Male	9.29	100	Minimum. See Section 6.1.
Female	9.29	100	Minimum. See Section 6.1.
Litter and Wheelchair Storage	4.65	50	1 per clinic.
Dedicated Nuclear Medicine Janitors' Closet	5.57	60	One for 10,000 nsf or one for Nuclear Medicine, whichever is greater. See Section 6.1.

NUCLEAR MEDICINE SERVICES

PET-CT	41.81	450	Per PET or PET-CT unit.
PET injection/waiting room (quiet room)	11.15	120	One per PET Service. Two reclining chairs and injection storage area.
PET Dedicated Lab.	11.15	120	One per PET Service.
Uptake Room	15.61	170	1 per clinic
Radiopharmacy	18.58	200	1 per clinic, add 100 NSF at Medical Centers.
Treatment Room	13.94	150	1 per clinic.
Injection room/ Venipuncture/ Dosing/Specimen collection	13.94	150	1 per clinic.
Decay Storage Area	11.15	120	1 per clinic.
Film Sorting/ Reading	9.29	100	1 per clinic.
Computer Room	23.23	250	1 per clinic.
Crash Cart	1.86	20	1 per clinic.
Clean Cart Holding	1.86	20	1 per clinic.
Soiled Cart Holding	1.86	20	1 per clinic.

TREATMENT AREAS

Treadmill Room	20.44	220	1 per clinic.
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DoD Space Planning Criteria for Health Facilities

Radiology and Nuclear Medicine

5.4.6. FORMULAS:

Column A	Column B	Column C	Column D	Column E	Column F
Imaging Technology	Utilization Hours per Year	Studies per Hour	Ideal Number of Patients per Year	Average Military Hospital Patients per Year	Utilization Rate
Normal Radiography	3,000	4	12,000	22,000	1.8
Fluoroscopy	1,250	1	1,250	900	0.8
Mobiles and Portables	2,000	2.5	5,000	1,300	1.4
Ultrasound	2,000	1.33	2,660	3,600	1.4
CT	4,992	2	9,984	1,800	0.2
MRI	4,992	1	4,992	600	0.1
Lone Radiology Unit in a Free Standing Clinic	2,000	1	2,000	1,300	0.7
Gamma Cameras	N.A.	N.A.	N.A.	1,150 studies	N.A.

Note: the CT and MRI are based on more than the normal duty day. This assumes a minimum of two shifts per day and one on Saturday and Sunday. Straight radiology is based on more than an 8-hour day also.

Calculation Method: Select the imaging technology for which you desire to calculate the number required. Project the annual number of patient visits. Divide the annual number of visits by the appropriate number of military treatment facility visits per year (Bold Column Above, Column E). Do not round up for free standing clinics if supported by a hospital in the area. Do round up for a hospital's second or more item and if additional item is more than 50% justified. First item must be justified by attainment of 80% of desired patient visits.

DoD Space Planning Criteria for Health Facilities

Chapel

5.7.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of military and contract chaplain offices and worship and meditation areas in medical facilities.

5.7.2. DEFINITIONS:

Chapel: A non-denominational gathering, worship, prayer and meditation area of one or more rooms within a medical treatment facility.

Chancel: The part of the chapel containing the alter, pulpit, lectern and seats for officiants.

Chaplain: A commissioned officer in a U.S. military service who has the mission of providing spiritual support and service to the uniformed service members, their dependents, and authorized civilians.

Meditation Room: A designated room where patients, family members and/or staff may meditate, pray or worship.

5.7.3. POLICIES:

Chapels and meditation rooms will not be programmed in dental clinics nor in veterinary clinics. Chapel areas will be programmed in all DoD hospitals and qualifying clinics.

Meditation rooms will not be programmed in free standing clinics with fewer than twenty providers.

A chaplain will not be programmed for hospitals with an average patient daily load (ADPL) of less than 20.

The Chapel is designed for inpatients, same day surgery patients, and their dependents and authorized civilians. It also may accommodate the medical facility staff.

It is the responsibility for the command to provide for the religious needs of its members. Hospital commanders are required to provide for the needs of both patients and members of the command.

Medical facility staff members and their dependents may also use the installation wide religious facility. Requirements for installation wide religious facilities are specified in MIL-HDBK-1190.

The Chapel is designed for average weekly or daily services and is not intended to accommodate special annual religious celebrations.

DoD Space Planning Criteria for Health Facilities

Chapel

5.7.4. PROGRAM DATA REQUIRED:

Is a free standing clinic or a hospital being programmed?
 If this is a freestanding clinic, what is the projected number of providers?
 What is the projected number of chaplains or civilian contract clergy assigned to the clinic or the hospital?
 Will scheduled, weekly religious services be held in this facility?
 Is there a training program for military hospital chaplains in this facility?
 What is the maximum number of chaplains who are receiving hospital chaplain training at one time?
 What is the average number of beds occupied daily, or average patient daily load (ADPL)?

5.7.5. SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Meditation Room	11.15	120	One per free standing clinic greater than 20 providers or one per hospital with fewer than 20 average daily patient load (ADPL) and no full time or part time chaplain.
Chapel	31.12	335	Minimum. One per hospital with greater than 19 average daily patient load (ADPL), and when there is a full time or part time chaplain. See formula in para. 5.7.6.
Chapel Alter	9.29	100	Provide one altar in a chapel when weekly religious services are scheduled. Does not include chancel.
Chapel Storage	9.29	100	Provide storage in a chapel when there are weekly religious services.
Chancel	9.29	100	Provide one chancel per MTF.
Chaplain's Office (full-time chaplain)	13.01	140	One office per MTF, plus an additional office for each projected chaplain FTE
Chaplain's Office (part-time chaplain)	11.15	120	One office if a part-time chaplain provides counseling services.
Chaplain's Assistant's Office	9.29	100	One office per chaplain assistant (enlisted skill) FTE.
Secretary and Waiting	11.15	120	One office waiting per MTF.
Group Supervisor's Office	11.15	120	One office if FTE assigned.
NCOIC/Secretary/SIT's Office	11.15	120	One office if FTE assigned.
Hospital Chaplain Trainee Office	9.29	100	Minimum, if there is one chaplain in training. Add 60 nsf for each additional chaplain in the training program.
Counseling Room	13.01	140	One per every three chaplains in a hospital chaplain training program.
CPE Training Center	13.01	140	Note: SEPS to verify.
CPE Group Library	13.01	140	Note: SEPS to verify.

DoD Space Planning Criteria for Health Facilities

Chapel

5.7.6. FORMULAS*:

Average Daily Patient Load (ADPL)	Number of Seats Provided
0 - 19	0 (No chapel)
20 - 40	30
41 - 45	35
46 - 50	40
51 - 60	45
61 - 70	50
71 - 80	55
81 - 90	60
91 - 100	65
> 100	3 additional seats for each additional 10 ADPL. 100 seats maximum.
* This formula can be modified, based on actual historical workload.	

Chapel Area = 10.5 nsf per seat X 0.95 X No. of Seats, plus 20 nsf per seat X 0.05 X No. of Seats.

- Step 1. Project the Average Daily Patient Load (average daily beds occupied). Use the most recent annual workload data.
- Step 2. Use the table above to determine number of seats to be provided. Round up to the nearest 5 seats for hospitals with greater than 100 ADPL.
- Step 3. Insert the number of seats into the formula to calculate the chapel area.

Note: The 10.5 nsf is the space for a normal seat (95% of all seats).
The 20 nsf is for a “handicapped” seat (5% of all seats).

DoD Space Planning Criteria for Health Facilities

Patient Services

5.8.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of general patient services in medical facilities.

5.8.2. DEFINITIONS:

Automated Teller Machine (ATM): An automated machine where patrons can withdraw money from their account. Typically associated with a specific bank that has a contract on the base or post to provide this banking service.

Exchange Service: Retail outlets and services shops operated directly by, or under contract to, the exchange service of either the Army, Air Forces or by the Navy.

Entry: The door(s) and the exterior portion of the access to a medical treatment facility. This will include a covering to shelter people from the weather while waiting for vehicle pick-up.

Lobby: The anteroom of the building through which most visitors/patients enter and depart the medical treatment facility. American Institute of Architects' Guideline for Design and Construction of Hospital and Health Care Facilities, require that lobbies include: a counter or desk for reception and information, public waiting area(s), public toilet facilities, public telephones and drinking fountain(s).

Vestibule: A passageway connecting the outside to the interior of the building. This is intended to provide a transition from the exterior to the interior and visa versa. This is also intended to provide a buffer from wind and weather.

5.8.3. POLICIES:

Each medical treatment facility will have covered entries where patients are intended to enter the facility.

Each medical treatment facility will have vestibules at patient entries.

5.8.4. PROGRAM DATA REQUIRED:

- Is a freestanding clinic or a hospital being programmed?
- If this is a freestanding clinic, what is the projected number of providers?
- How many patient advocate FTE's are there?
- Will there be an Exchange Retail Store in the facility?
- Will there be a Flower Shop in the facility?
- Will there be a coffee or fast food shop in the facility?
- Will there be an ATM Machine in the facility?
- How many barbers are projected to be working in this facility?
- How many beauticians are projected to be working in this facility?
- How many volunteers are projected?
- What is the maximum number of volunteers on duty at one time?
- How many health care providers are projected to be working in this facility?

DoD Space Planning Criteria for Health Facilities

Patient Services

5.8.5. SPACE CRITERIA:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m²	nsf	
Patient Areas			
Patient Advocate Waiting Area	7.43	80	80 nsf minimum, add and additional 40 nsf for each advocate FTE over one.
Patient Advocate’s Office	11.15	120	One office per patient advocate FTE.
Exchange Retail Store (Gift Shop)	37.16	400	One per hospital if AAFES/NES agrees to provide. More space can be programmed if agreement is reached with the Army and Air Force Exchange Service or the Navy Exchange Service.
Food Service Vendor Space (Coffee or Fast Food Shop)	33.45	360	One per hospital if AAFES/NES agrees to provide. More space can be programmed if agreement is reached with the Army and Air Force Exchange Service or the Navy Exchange Service.
Flower Shop	7.43	80	One per hospital when there is contract for this service projected.
Vending Machine Area	1.86	20	20 nsf per vending machine area. Minimum one. One vending machine per 15,000 nsf of clinic space. One vending machine per 10,000 nsf of hospital clinic space. Note: Vending machine may be consolidated in one area, or may be decentralized for more convenient customer access.
ATM Machine	3.72	40	One when a contract for this service is projected.
Barber Shop	11.15	120	Minimum One barber shop per hospital when a contract for this service is projected. Minimum of 120 nsf for a one chair barber shop, add 60 nsf for each additional chair. Determine the number of chair based on barber contract.
Beauty Shop	11.15	120	Minimum. One beauty shop per hospital when a contract for this service is projected. Minimum of 120 nsf for a one beautician, add 60 nsf for each additional beautician. Determine the number of beauticians based on the contract for beauty shop services.

DoD Space Planning Criteria for Health Facilities

Patient Services

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
American Red Cross			
Red Cross Director	13.01	140	One when Red Cross Director assigned.
Secretary to the RC Director	11.15	120	One when secretary FTE documented, space for secretary and visitor waiting.
Volunteers' Lounge	9.29	100	Minimum. 100 nsf, provide 10 nsf for every projected volunteer on duty at one time in excess of ten.
Volunteers' Locker Room:			
Male locker room	9.29	100	Minimum. Provide 7 nsf for every projected volunteer on duty at one time in excess of ten.
Female locker room	9.29	100	Minimum. Provide 7 nsf for every projected volunteer on duty at one time in excess of ten.
Medical Treatment Facility Entries (from the exterior)			Covered (sheltered) entries shall be provided on the exterior of a building and their net square foot is calculated as "half space."
Exterior Clinic Entries	4.65	50	Provide 100 square feet of covered entry on the exterior of the entry to a free standing clinic.
Exterior Hospital Entries	9.29	100	Provide 200 square feet for each of the following hospital entries: Ambulatory or clinic entry X 2, hospitalized patient entry, staff entry (four entries).
Lobbies			The lobby area includes public telephones, water fountain(s), wheelchair storage alcove, and building directories.
Free Standing Clinic Lobby	18.58	200	Minimum 200 nsf. 4 nsf per provider projected. This area is also listed in Section 3.1, paragraph 3.1.5: do not list twice.
Hospital Lobby		varies	2 nsf per provider projected, maximum of 800 nsf
Information Desk	5.57	60	One per free standing clinic with more than 15 providers and one FTE to staff the desk projected. Two per hospital, one for the clinic entry and one for the inpatient visitor entry, when FTE staffing is projected for two desks.
Lobby Vestibule	5.57	60	One per lobby.

DoD Space Planning Criteria for Health Facilities Toilets, Lounges, Locker Areas and Janitors' Closets

6.1.1. PURPOSE AND SCOPE:

This section provides guidance for the planning of toilets, staff lounges, locker rooms and janitors' closets.

6.1.2. DEFINITIONS:

Diaper Changing Area: A fold-down table required in all public toilets and toilets at any primary care and pediatric clinics.

Employee Count: The number of employees used in determining plumbing fixtures, lockers or lounge areas. Unless specifically noted otherwise, the number of employees used should be during the peak shift.

Janitors' Closets: A janitors' closet is to be used primarily by the housekeeping staff, either an in-house or a contracted service staff members. This room should include a service sink, shelving for a limited amount of housekeeping supplies, and floor space for housekeeping equipment, such as a vacuum cleaner and/or mop bucket.

Occupancies: Plumbing fixture amounts depend on the building occupancy type:

Business occupancy: is a facility that provides treatment or services on an outpatient basis only.

Ambulatory Health Care occupancy: is a facility that provides treatment or services to four or more patients at the same time that meet the criteria of either the two statements below:

1. Provides, on an outpatient basis, treatment for patients incapable of taking action for self-preservation under emergency situations without the aid of others.
2. Provides, on an outpatient basis, surgical treatment requiring general anesthesia.

Hospital occupancy: is a facility that provides medical services on a 24-hour basis for medical, psychiatric, obstetrical or surgical care of four or more patients

Patient Toilet: This is a toilet that is intended for the use of any patient in a dedicated area or department and is located beyond the public area or public corridor.

Public Toilet: - This is a toilet that is intended for the use of anyone in facility and is located in a public area or off a public corridor.

Service Sink: This is a single, non-clinical sink that is intended for the use of a dedicated area or department.

Staff Toilet: This is a toilet that is intended for the use of the personnel that work in the area, i.e. not for public use. Staff toilets should not as a rule be located convenient to the public.

Staff Lounge: This is a room intended as a break area for the workers in their working area (clinic, section, service, etc.)

Staff Locker Room: This is an area, which includes lockers for staff personnel to work out/change clothes while at work, or may keep their uniform for work. This area will include a shower or showers.

DoD Space Planning Criteria for Health Facilities

Toilets, Lounges, Locker Areas and Janitors' Closets

Staff Personal Property Locker Area: This is an area for lockers for staff personnel, who do not have an office, to secure their personal items while at work.

Using Employee: An employee that will use the staff locker and shower area. Use 20% of FTE personnel at the maximum shift.

6.1.3. POLICIES:

Each Department, Service or Clinic of a health treatment facility will be provided with adequate toilet, lounge and locker facilities. Every clinic or service, which provides services to patients, will be provided with toilets for the patients, i.e. patient will not have to depart the clinic to find a toilet.

An adequate number of toilets will be provided in appropriate location to provide facilities to handicapped persons in accordance with the American with Disabilities Act (ADA).

Plumbing Fixtures:

MIL-HDBK-1003/1 has adopted the International Plumbing Code (IPC) 2000, with certain amendments*. It is important to note that the code differentiates between Ambulatory Health Care/Hospital and Business occupancies. The Ambulatory Health Care/Hospital occupancy requirements are more stringent than the Business occupancy requirements. The number of fixtures to be provided for these functions will be based on the total number of visitors and patients during the peak period as indicated by the number of seats provided in waiting rooms. The following table (which is based on MIL-HDBK-1003/1) will be used to determine the number of fixtures.

* **Note:** Most of these amendments apply to Navy projects only; however, the SEPS committee has decided to adopt them for all services. They are typically more stringent than the IPC 2000.

Fixtures:				
Patrons per fixture for Ambulatory Health Care/Hospital Occupancy	Water Closets	Drinking Fountains	Lavatories	Showers
Each 15 women or fraction thereof	1		1	
Each 15 men or fraction thereof *	1		1	
Each 100 men/women or fraction thereof		1		
Each 15 using employee FTEs in max. shift or fraction thereof. Using employees are 20% of the total FTEs in max. shift				1

- Up to 34% of all water closets may be substituted with urinals.

DoD Space Planning Criteria for Health Facilities Toilets, Lounges, Locker Areas and Janitors' Closets

Fixtures:

Patrons per fixture Business Occupancy	Water Closets	Drinking Fountains	Lavatories	Showers
Each 20 women or fraction thereof up to 100, then 1 per 40 thereafter	1			
Each 20 women or fraction thereof up to 100, then 1 per 45 thereafter			1	
Each 20 men or fraction thereof up to 100, then 1 per 40 thereafter *	1			
Each 20 men or fraction thereof up to 100, then 1 per 45 thereafter			1	
Each 100 men/women or fraction thereof		1		
Each 15 using employee FTEs in max. shift or fraction thereof. Using employees are 20% of the total FTEs in max. shift				1

* Up to 34% of all water closets may be substituted with urinals.

Drinking fountains: Drinking fountains should not be located within restrooms.

Janitors' Closets: A janitors' closet is to be used primarily by the housekeeping staff, either an in-house staff or a contracted service group. Verify the specific contractor requirements if a contracted service group is employed. Several departments can share one janitor's closet, as long as the area of all the departments does not exceed 10,000 nsf.

Locker Rooms: In general, locker room space will be consolidated into a central locker room facility, separated from patient areas, with appropriate toilet and shower facilities. Lavatories and toilets will be provided according to the ratios identified above. Showers will be provided on a ratio of 1 shower per 15 using employees, during the maximum staffed shift, not to exceed 10 shower fixtures.

Lounges: A staff lounge is permitted per clinic by the criteria. Where a staff lounge will serve less than 10 employees during the maximum staffed shift, every effort will be made to combine the lounges from two or more adjacent clinics. The staff lounge is the location where employees may eat. The staff lounge must be provided with a sink.

Personal Property Locker Areas: In general, personal property locker areas space will be provided within each department.

DoD Space Planning Criteria for Health Facilities **Toilets, Lounges, Locker Areas and Janitors' Closets**

6.1.4. PROGRAM DATA REQUIRED:

STAFF:

Program data for toilets, lounges and locker rooms is captured in each separate section of the criteria. For example, the data needed to program these facilities for the Physical Therapy Clinic is gathered with the data necessary for programming the Physical Therapy Clinic. The data generally consisted of the projected number of staff in the clinic, service or unit during the maximum shift and divided into projected numbers of male and female. Staff toilets and locker rooms may be combined and shared.

Determine if vending machines are included in staff lounges. Sections 4.2, 4.4, and 4.5 also have additional staff toilet, shower and locker requirements due to their frequent use by staff.

OUTPATIENTS AND VISITORS:

Public toilets in public areas (lobbies) will be based on the number of providers assigned to the MTF.

In Public Lobbies:

Providers	Sex	W.C.s	Lavatories	Urinals
1-20	Female	2	2	
	Male	1	2	1
20-100	Female	4	4	
	Male	2	4	2
100+	Female	6	6	
	Male	2	6	4

Include an area within each public toilet off a lobby for diaper change.

Within outpatient clinics, project both the number of male and female patients in the clinic at one time by counting the number of examination rooms (assuming one patient per room) and the number of seats in the waiting room. This is the maximum number of patients requiring toilet facilities for that clinic. Public toilets requirement between clinics may be combined and shared when the clinics are combined or share a waiting room. These numbers are based on a population that is 50% male and 50% female. MTF's that can clearly define a different ratio can be adjusted accordingly.

BUILDING OCCUPANCY:

Since plumbing fixture quantities vary between Ambulatory Health Care/Hospital and Business occupancy, the building occupancy needs to be determined.

DoD Space Planning Criteria for Health Facilities Toilets, Lounges, Locker Areas and Janitors' Closets

6.1.5. SPACE CRITERIA:

For Public and Staff Toilets and for Staff Showers and Lounges in Clinics/Services and Units:

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Patient, Visitor & Staff toilets containing no more than one W.C. and one lavatory. They will all be handicapped accessible.	5.57	60	If the door swings out, the area may be reduced to 40 nsf and still comply with accessibility requirements.
Toilet rooms containing two or more fixtures of the same kind will have at least one handicapped fixture. An allocation for an entry vestibule and a diaper changing area are also required.		varies	40 nsf per fixture plus an additional 15 nsf for each handicapped fixture, plus areas for diaper changing and an entry vestibule (see below).
Single occupancy toilets for inpatient rooms.	5.57	60	Nsf each.
Single occupancy room with shower/sink/toilet.	6.50	70	Nsf each.
Entry vestibule	1.39	15	Additional area in all toilet rooms containing two or more fixtures for visual privacy.
Diaper change area	0.93	10	Provide one in each public toilet and in toilets at primary care and pediatric clinics.
Personal Property Locker Area	1.86	20	Minimum (ten lockers). Provide 2 nsf for each FTE without a private office. Should be provided within each department. May be located in a lounge or as an alcove off of a staff hallway.
Changing Locker Room	9.29	100	Minimum. Add 7 nsf for each projected FTE over 10, on all shifts combined. May be centralized to accommodate more than one department. Provided to allow staff to workout/change clothes.
Shower Room	5.57	60	Minimum: provides area for one shower. Increase by one shower for each increment of 15 using FTE's on peak shift over 10. Add 20 nsf per each additional shower. Provide a minimum of one shower per changing locker room. May be centralized to accommodate more than one department. Provided to allow staff to workout/change clothes. Do not exceed 10 showers per shower room area.
Staff Lounge	0.93	140	Minimum. Add 10 nsf for each projected FTE over 10, on peak shift. Maximum size not to exceed 300 nsf. Add an additional 20 nsf if vending machines are included.

DoD Space Planning Criteria for Health Facilities
Toilets, Lounges, Locker Areas and Janitors’ Closets

FUNCTION	AUTHORIZED		PLANNING RANGE/COMMENTS
	m ²	nsf	
Janitors’ Closet	5.57	60	One janitors’ closet per 10,000 nsf. Several departments can share one janitors’ closet, as long as the area does not exceed 10,000 nsf.